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ABSTRACT

Six reports from a workshop of Organisation for Economic Co-operation and Development (OECD) members establish the framework for the Centre for Educational Research and Innovation project on creativity of the school. The reports reflect the workshop's goals to establish priorities for further study and to identify contributions and benefits of member countries from a study of the school as a focal point for social change. The major issues which arose in the workshop are the following: organization and relationships within the school, incentive systems for teachers, allocation of financial resources to the school, role of the inspectorate, and regional and local professional support to the school. The first report presents an analysis and taxonomy of the principal factors influencing creativity of the school. Next, ways to strengthen creativity of the school, administrative relationships between the school and outside institutions, and organization and relationships within the school are reported. The final reports deal with interventions for strengthening the school's creativity and with professional support to the school. A list of workshop participants is appended. (Author/KSM)

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A Survey of Research in 12 Countries.

ED 099260

Centre for Educational Research and Innovation (CERI)

DEC 21 1974

CREATIVITY OF THE SCHOOL

A report based
on presentations made to a Workshop
at Estoril
Portugal, 21st-25th November 1972
organised by CERI
in collaboration with
the Portuguese Ministry of National Education

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
1973

The Organisation for Economic Co-operation and Development (OECD), which was set up under a Convention signed in Paris on 14th December, 1960, provides that the OECD shall promote policies designed:

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Director of Information, OECD
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PREFACE

Today, nobody would seriously contest the reality that the school is a focal point for social change. Of course, schools cannot of themselves change society in any absolute sense: they cannot create equality in unequal societies, nor can they create order where lawlessness has become pervasive. Yet they become involved in all significant social changes for the simple reason that the social aspirations of adults are transmitted as if by lightening to the institutions where their children learn.

But how should the schools become involved in the process of social change? Should they become the "agents of innovation", the final link in the implementation chain between a national reform and its application in the classroom? Or should the classroom be the inventor of educational changes which make their way into the system?

There are many different answers given to these questions in the OECD countries, in accordance with their different historical traditions and political realities. Yet all would recognise that, in democratic societies, the school has to respond in a creative way to the pressures of society. It should not passively adopt all available or proposed innovations - nor should it claim the privilege of acting as an entirely autonomous force for social change. But how can this balance between social responsibility and internal creativity, between the stabilising forces of tradition and the mobilising forces of change, be struck? How can public authorities help to develop the conditions in which the schools can develop such a role? What are the internal organisational arrangements that will permit the school to play it? These are the questions to which the CERI Project on Creativity of the School is trying to find answers.

The purpose of the meeting in Estoril, which was organised in co-operation with the Portuguese authorities, was to establish the framework for the project, to agree on priorities for further

study, and to enable the Member countries of the OECD to identify the contributions they could make and the benefits to be derived. The heavy involvement of many OECD countries in the subsequent stages of the project testifies to the success of the Estoril discussions. The following major issues affecting the creativity of the school are now the subject of intensive work by a number of national teams on their home grounds:

(i) organisation and relationships within the school
(ii) incentive systems for teachers
(iii) allocation of financial resources to the school
(iv) role of the inspectorate
(v) regional and local professional support to the school.

The CERI Secretariat is continuously bringing together the results of these studies so as to produce a final policy report on the Creativity of the School. The present Report, which sets out the problems and the approaches for dealing with them, is a first contribution.

J.R. GASS
Director
Centre for Educational Research
and Innovation

EDITORIAL NOTE

In presenting this report, acknowledgement is made of the key role performed by the Secretariat of CERI who guided the development of the theme throughout with insight and efficiency. The authors of the papers presented here, the authors of the ten national papers, the chairman of the discussion groups during the Workshop and, indeed, all the participants from Member countries, have helped greatly in clarifying the issues in this approach to innovation. The generous and friendly hospitality of the Portuguese authorities during the Workshop also made an important contribution to the successful outcome of the work.

JOHN NISBET
Rapporteur

I. INFLUENCES ON CREATIVITY OF THE SCHOOL

Analysis and Taxonomy of the Principal Factors

by

Rien van Gendt

Centre for Educational Research and Innovation, OECD

There seems to be a common assumption in most Western societies that the educational system must move deliberately away from being a custodian of stability towards the promotion of social change, cultural development and economic progress - or at least it should be an important component in such a process. In this context, the culture-transcending role of the school has begun to displace its culture-transmitting function. Partly as a consequence of this, the last decade has been a period of ubiquitous innovative activity in the educational system. In short, innovation was (and still is) "en vogue".

However, looking at actual developments in Member countries one observes that, despite much talk about innovation, schools are somehow incapable of reacting effectively to the challenge it offers. Sometimes an initial movement in a desired direction has been cut down to a trivial exercise by constraining factors. Sometimes new practices have been adopted without adequate diagnosis of their effectiveness in the functions to be performed. Sometimes change is generated by an individual teacher but never takes root in the school as a whole and so perishes with the originator.

Hence this axiom should be kept to the forefront in consideration of the problem: innovation has a reality only in the context of goals or aspirations of those involved in the system. It should be purposeful and not a discontinuous event. Nothing is inherently good or valuable in innovation. Change is not good in itself and one should not jump on the bandwagon of innovation without first approving of the direction in which it is going.

The topic to be considered is the ability of the school to adopt, adapt, generate or reject new practices whether they are initiated from outside or generated internally. The major purpose of our analysis will be to improve this ability and so to strengthen the problem-solving capacity of the school.

STRENGTHENING THE CREATIVITY OF THE SCHOOL

An important underlying assumption of our analysis is that schools could be more actively involved in the process of innovation. If they are viewed merely as passive elements in a national "innovation policy", then the effectiveness of such a policy will be doubtful. Imposition of innovation from without often creates strains and confusion inside and may well bring the school to respond in a way that is inimical to the institutionalisation of the change proposed. Thus, the formal adoption of new practices at some higher administrative level does not necessarily imply their actual use in the schools. This is not say, however, that there is no potential problem-solving capacity among the professional staff in a good many schools in most countries. There certainly is, and if this were taken into account when schemes for improvement were being planned (both by bringing such staff into consultation and allowing them some discretion as to the means of implementation in their own schools) there would be much greater likelihood of innovation successfully permeating the whole system.

But here we must make an important reservation. The true test of successful innovation is the extent to which it takes root in, and pervades, the school as a whole - not the performance of individual teachers in the relative isolation of their own classes. Hitherto the teacher has been regarded as the most important factor in the innovation process and much attention has been paid to his individual development, first to modify his own behaviour and then to trigger off a multiplier process among his colleagues. This has fostered a myopic concentration on single roles in teaching and screened out other factors of equal importance such as internal relationships, authority structures and the extent of the school's own discretion in dealing with such matters as finance and material resources. Our contention here is that in the present analysis of problem-solving capacity the smallest organic unit that should be considered is the school - not the individual teacher or his class.

In focusing thus on the school, however, we must not in our turn be myopic. External relationships are just as important as internal ones and our approach must take proper account of the administrative system at local, regional and national level, outside professional support structures and other relevant influences in the school's environment.

No doubt participants in the Workshop will be considering the short-term implications of introducing specific innovations or up-dating the school in terms of its functions and performance. The main issue, however, is how to build a capacity to respond to new practices and situations into the school and to ensure that it remains alive. In the present context, improving the school's problem-solving capacity to deal with change is synonymous with strengthening the creativity of the school - 'creativity' referring to its own ability to deal with new practices(1). This does not necessarily mean that the school is the creator of innovation but that it has the potential to adopt, adapt, generate or reject it. Nor should we be concerned solely with the school's problem-solving capacity in isolation; its relationships to the administrative and other forces in the environment are equally important. Indeed, the creativity of a school is inevitably bound up with the creativity of the system within which it works.

SOME CHARACTERISTICS OF THE EDUCATIONAL SYSTEM AND THE CREATIVITY OF THE SCHOOL

Analysing the concept of creativity calls for a multiple-factor approach, for there are many things that may inhibit or encourage the problem-solving capacity of a school. Examples are the attitude of an individual teacher, the internal organisation,

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(1) Although we are not presently concerned with the creativity of the individual pupil as a dimension of his personal development, the concept of creativity as defined above might have a certain impact on this. It is possible that some relationship between the two may emerge at a later stage in this general enquiry.

the allocation of its financial resources or its administrative relationships with the local education authority. Such factors must be considered within the context of a specific national situation, and in relation to the characteristics of the system under consideration and, especially, to the characteristics of the innovation itself. Characteristics that are particularly important relate to:

(a) the way educational tasks are structured within the school; and

(b) the administrative structure of the country's educational system.

In the matter of (a), the factors affecting the creativity of the school have to be examined in relation to the present and changing objectives and functions of the national educational system. In operational terms, this means that they should be seen in relation to the way educational tasks are structured in terms of curriculum content, pedagogy and pupil assessment.

There seems to be a relationship between the perception of educational tasks and the structuring of the various factors. For instance, the way in which the subject matter to be taught is structured as a task (e.g. multidisciplinarity) together with the criteria established for performance evaluation might determine the possible relationships between teachers and pupils, and might influence the nature of teacher-training and in-service training. The relation between different subjects might determine the relationships between teachers. The extent to which the school is involved in the construction of learning material might influence the nature of outside supporting structures.

The general administrative structure of a country referred to in (b) is important in relation to its degree of (de)centralisation - that is the discretion and accountability delegated to the various functional levels. The structure of the educational system varies from one country to another and in consequence the discretion and accountability of schools will vary also. Some countries favour the adoption and adaptation of new practices that have been developed outside the school; others encourage the generation and institutionalisation of innovations from within.

Although it is important at a certain stage to relate the analysis of factors such as the attitude of teachers and the provision of professional support to a specific national situation, it is equally useful to consider them in a more general way, independently of any specific system.

FACTORS AFFECTING THE CREATIVITY OF THE SCHOOL

Many factors have an effect on the creativity of a school, the principal being:

1. The financial resources allocated to it.
2. Pre-service training of teachers, headmasters and administrators.
3. In-service training of teachers, headmasters and administrators.
4. The employment conditions of school staff (e.g. possibilities of promotion or transfer).
5. Adequacy of staff skills.
6. Efficacy in the appointment and evaluation of staff.
7. Provision of capital equipment.
8. Provision of professional support to the school.
9. Provision of learning materials; the relation with producers and the selection and purchase of teaching aids.
10. Relations between the school and its administering authorities.
11. Relations between the school and other influential outside bodies or individuals.
12. Attitudes of staff towards innovation and their capability of putting it into practice.
13. Social organisation within the school.
14. Authority relationships and decision-making processes within the school.
15. The expectations of individual parents, employers and other citizens with a concern for education.

To propose a single model for structuring these various factors and their relationships - a mega-solution for all countries - is impossible on account of the multiplicity of variation in local characteristics. All that can be done is to create something appropriate to a specific national context at a known point in time.

In addressing ourselves to the problem as a whole, a systems approach is felt to be useful - the school being regarded as a sub-system of its sociological/economic environment and all factors (internal and external) affecting its creativity being subject to separate analysis, either singly or in clusters. To give one example: powers exercised by a number of heterogenous bodies outside the school (central and local government, professional institutions, examining bodies, teachers' associations, parents, and so on) undoubtedly have a strong influence on the selection and organisation of curriculum content; whatever then may be decided will, in turn, have important consequences vis-à-vis power relationships within the school.

As we have seen, factors affecting creativity of the school are numerous. It becomes necessary, therefore, to group them in clusters if they are to be readily handled in our analysis. This presupposed selection of a suitable taxonomic basis and relative proximity between factors is proposed for the purpose. This enables grouping in five clusters where the factors are respectively inherent in:

(i) the administrative relationships between the school and outside institutions;

(ii) the organisation and relationships within the school;

(iii) professional support to the school from outside;

(iv) interventions for strengthening the school's creativity (e.g. in-service training and Organisation Development in the sense of Schmuck's definition;)

(v) the influences of the school's environment.

THE INTERDEPENDENCE BETWEEN FACTORS

These five clusters can be visualised as five intersecting circles. This does not prevent separate analysis of a single factor or a single cluster of factors; but it should be appreciated that, while this might point to the desirability of restructuring one or more of the constituent factors, such action would not be justified as a means for strengthening the problem-solving capacity of the school until its influence upon all other factors or clusters had been confirmed as beneficial or, at least, innocuous.

As an illustration let us consider the relation between the school and the outside administrative and non-administrative institutions. The two following situations should be regarded as extremes of a continuum. In the first a school has considerable discretion, for instance to transfer items from one account to another (i.e. virement) or to allow its teachers freedom to plan their own activities. This, however, does not necessarily render the school eagerly receptive to new ideas or practices. Various internal factors might stand in the way; for example, negative attitude on the part of a staff reluctant to change established patterns, the sheer weight of the extra work load, the lack of time, inability to take proper advantage of the freedom provided or the lack of outside professional support. In the second situation, a school might be intrinsically very resonant to innovation so far as its internal structure and the attitudes and capabilities of staff are concerned, while outside influences (local authorities, school boards, examiners or parents) put a dampener on creative experimentation. In both these cases it will be difficult to ensure that an innovative approach becomes absorbed into the school's character without danger of "tissue rejection" at some later date.

CONCLUSIONS

Measures for improving a school's capacity for problem-solving (and by extension, its receptivity to innovation - accepting, adapting, or designedly rejecting) must be conceived in a knowledge of all factors influencing its organisation and its conduct. Hitherto the tendency has been to concentrate upon internal factors to the neglect of those impinging from outside. This should be remedied by

the adoption of an overall approach. In total, however, these factors are so numerous and diverse that a system of classification must be devised before they can be properly analysed and their inter-relationships understood. Such a system is here proposed, the factors being grouped as appropriate into five categories or "clusters" each of which represents an area (administrative, sociological, economic, professional or personal) from which important influences are exerted on the school - both within and without.

While it is hoped that this system will facilitate study of the problem - not least by instilling a sense of realism - the diversity of educational systems between countries is such that no model with universal application can be expected to result. In the ultimate, each country will have to work on its own solution in terms of the policies and practices prevailing and for a given moment in time.

II. STRENGTHENING THE CREATIVITY OF THE SCHOOL

by

John Nisbet
Professor of Education, University of Aberdeen

INTRODUCTION AND SUMMARY

The previous paper has set out the general considerations in our approach to the topic of "Creativity of the School", and the four papers which follow review the problem in detail from different angles - the administrative relationship between the school and outside institutions, the internal organisation of the school, professional support to the school and intervention for strengthening the school's creativity. This paper is intended as a bridge between the general and the specific approaches, and it aims also to provide an overall review of the topic. Certain points require elaboration if the problem is to be seen in its proper perspective. What is implied in our use of the term "creativity"? Why do we take the school as a basic unit in the response of the educational system to the challenge of change? The paper also reviews briefly the considerations that apply in each of the four specific areas considered in the subsequent papers and notes the interactions of these different factors affecting the creativity of the school. The paper concludes by raising some further issues that arise from the discussion so far and points the way ahead in the development of the OECD/CERI project, "Creativity of the School".

THE DEFINITION OF CREATIVITY

Those who are directly and personally confronted with day-to-day problems in teaching and in the administration of education are often impatient of general abstract discussion of concepts such as the creativity of the school. But the pressure of urgent practical problems has the effect of narrowing our vision so that we fail to see these problems in perspective, and we tackle each problem separately and independently, neglecting

the more general problem of developing the adaptive capacity of the educational system as a whole, or of the schools as units of that system. We are too busy fire-fighting to be able to stand back and see clearly what should be done in the longer term.

In a society that is static and where there is no need for change, the task of administration, both at the national level and within the school, can be interpreted as minimising the disrupting effects of unforeseen events, and ensuring that institutions function smoothly and efficiently. But in a period of fundamental change, such as we seem to be experiencing at present, the task of administration is much more difficult. It is tempting for the administrator to react in one of two ways, both of which are essentially inadequate: either to resist change and strive to maintain stability in terms of established values and procedures; or, at the opposite extreme, to accept the need for change and to strive to promote reforms as radically and as quickly as possible. Most of us tend to take up a position somewhere between these two extremes of stubborn resistance to change and acceptance of change. However, the implication of the phrase, "creativity of the school", is that the solution is not to be found merely in an intermediate position on this dimension between resistance and acceptance. The term "creativity" introduces a new dimension, implying a selective and discriminating response to change. It also involves the more positive role of initiating appropriate changes within the school.

Thus, "creativity of the school" is defined as its <u>capacity to adopt, adapt, generate or reject innovations</u>. On this interpretation, the effective development of innovation requires a strengthening of this capacity in the schools; and the first step is to identify the factors that will improve the capacity of schools to adopt innovations or to adapt them to suit their special circumstances, to generate new ideas and approaches, and to resist or reject those changes that are in conflict with their aims or are unsuited to their conditions of working. "Creative" is therefore not to be interpreted as limited to meanings such as "inventive, original, divergent": on this definition, a school may be creative also in adapting or even in rejecting innovations.

Thus, the term "creativity" is being used to indicate something more than just innovation and initiative in reform of the educational system. It implies a flexibility of approach which has three elements: confronting problems, responding to problems and evaluating the response to problems. If schools can develop the capacity to do these three things as relatively autonomous units, the system as a whole may develop dynamically, in that each step a school takes towards greater flexibility improves its confidence in taking the next step, thus increasing step by step the problem-solving capacity of the system. The point at issue, therefore, is not just a matter of improving the receptivity of schools to planned innovation from a central authority: it is assumed that we want to improve the capacity of the school itself to deal with innovation.

THE SCHOOL AS THE UNIT OF ANALYSIS

As stated in the previous paper, the school is taken as the smallest appropriate unit for analysis. In the paper that follows, it is argued (within the English educational system) that the school is the "prime institution" because of its wide discretion in determining the content and organisation of teaching and learning. The idea of strengthening the creativity of the school is based on the assumption that the school as an institution has a key role to play in the response to change.

This assumption may be challenged from two quite separate positions. First, those who adhere to the "great man" theory of history may argue that the individual headmaster or teacher is the unit with which we should be concerned, and not the school: the institution is the lengthened shadow of a man. A school cannot be creative, they argue: it is the individual who is creative, and the school can only adopt the ideas of individuals. But as Hoyle points out (in a paper to be published in a subsequent volume), to focus on the school

> "... is not to deny the significance of the creative individual. Creative teachers and headteachers have been very important in the development of educational innovation ..... They have been the prophets, the pathfinders - and often the rebels, who have caused educational institutions to take a look at themselves. But education is a shared enterprise, and even the rebels have had to persuade colleagues to adopt their proposals .... It is the quality of the school as an institution which is the important factor since perhaps the majority of educational innovations involve groups of teachers, if not entire schools."

The school is the agency that provides the "multiplier effect", since the individual alone cannot trigger this effect. Individual efforts at innovation tend to fade out on the withdrawal of the individual. Moreover, the effective implementation of innovation often involves a co-operative style of working in conflict with the "private"style which is the normal expectation of the teacher. The creative teacher is often the divergent personality who likes to work on his own, and his achievements perish with him or, at best, are limited only to those pupils whom he teaches. The creative school must somehow release these talents (or, sometimes, restrain or redirect them) so that they are shared with colleagues and made available more widely.

At the opposite extreme, others may argue that the school is inevitably a reflection of the whole social structure of a community, and that it cannot aspire to break this dependency. Admittedly, most pressures for change come from outside the school. But innovations that are thrust on the school fail to take root if they are merely a pressure from outside and do not link up with any problem recognised by those within the school. An example of this is to be found in Barker Lunn's(1) study of streaming in English primary schools: in schools where streaming had been abolished, those teachers who believed in streaming tended to

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(1) Lunn, J.C. Barker, Streaming in the Primary School. Slough. NFER, 1970.

continue to teach in the same way, and the performance of the children in their classes resembled those in streamed classes rather than those in unstreamed classes. Or, more simply, the innovation is merely forgotten and dies after the initial period of novelty, as in many cases of the introduction of programmed learning in schools.

Not all innovation has its origin outside the school: in some cases, we may look to the school to generate its own solutions to problems, and this possibility is provided for in our definition of creativity. In other cases, where schools adopt or adapt (or reject) innovations, it is clear that discussion only makes sense when one looks at a "school system", that is, a complex of schools with the administrative and professional support which is an important source of funds, initiative and expertise. Within this setting the school is an appropriate operational focus for our discussion. Possibly, in the future, we may have to consider a wider unit than the school, if there is a move towards an integration of schools in community units, and a blurring of the boundaries between the school and other cultural agencies, such as libraries, arts centres, sports complexes and television. At present, however, it is important to strengthen the creativity of the school, to develop its capacity to adopt, adapt, generate and reject innovation. For only in this way can innovation be tailored to fit local conditions and existing facilities. In the past forty years one of the achievements of educational psychology has been to demonstrate the importance of individual differences among children: by taking account of these differences, and involving the children actively in their own education, we are better able to promote their growth and development. The argument here is analogous in that it extends this form of reasoning to institutions instead of children: we need to recognise the variety of individual differences among schools, and by appropriate means to foster their capacity to promote their own growth.

FACTORS AFFECTING THE CREATIVITY OF THE SCHOOL

What, then, are the appropriate means of strengthening the creativity of the school? The previous paper has identified a number of influential factors and has grouped these in five clusters:

(i) the administrative relationships between the school and outside institutions;

(ii) the organisation and relationships within the school;

(iii) the professional support to the school;

(iv) the interventions for strengthening the school's creativity (.eg. in-service training and organisational development);

(v) the influence of the school's environment.

The first four categories are discussed in detail in the papers that follow. The fifth category, which is more general, is considered briefly later in this paper. Each of the categories is itself complex, and in the detailed analysis it is easy for the reader to forget their close interdependency. Consequently, the whole range of factors is briefly reviewed here, so that they may be seen in context.

Initially, to clarify the meaning of the categories adopted it may be helpful to apply them to a different form of institution - the working of a committee - by way of analogy. It can be argued that a committee never has an idea, but merely adopts the ideas of its individual members; or that a committee has no power of its own, but operates only with the power given to it by its parent body. Nevertheless, a committee may be creative, or it may be inflexible, or it may adopt too readily whatever is prescribed by the latest fashion. What are the factors that underlie the strength of a really effective committee? In category 1 (the administrative context) there are: the remit, the conditions of working, the relationship to the parent body. Category 2 (the internal structure) comprises the interrelationships among the members, the chairman's style and skill in handling

discussion, the use of sub-committees, the openness of discussion. Category 3 (professional support) comprises the secretariat, the minuting of decisions, the preparation of agenda and supporting papers; and category 4 (interventions) refers to the use of consultants and experts. Category 5 is the whole climate of opinion within which the committee operates.

It is possible to analyse the working of a school in a similar way, and to identify the factors that affect its capacity to deal with innovation. We need to deal systematically with these questions if we are not to see the present innovative efforts wasted. Already there are signs of "innovation fatigue" among teachers - a feeling of frustration with apparently purposeless and ineffective change which is undermining such willingness as now exists to contemplate changes in curriculum and organisation.

(i) The administrative relationships between the school and outside institutions

Clearly the school's response to innovation is influenced by its relationships with local, regional and national education authorities, as well as with other institutions and groups outside the school. This first cluster of factors is concerned with the administrative context of the school. Though we have taken the school as the basic unit in our analysis, it would be absurd to discuss the school without considering the context within which it operates. Yet in the past we have tended to expect innovative schools to develop on their own, seeing their problems as mainly internal problems; and this is part of the reason why innovation has frequently not been sustained beyond the first initiative. Administrative relationships can hinder or support the school in its capacity to deal with change. Innovative practices in the school also effect administrative arrangements, creating pressures for new procedures, discretionary powers and support services.

Given the fact that schools can never be wholly autonomous, they must accept certain constraints and certain pressures - especially financial; how much money they receive and how this money is spent; also, more generally, in the allocation of buildings and grounds; in the appointment and deployment of staff;

in the content of their curriculum and the options available within the curriculum; and even in the declared aims and objectives of the school. Schools cannot expect to decide such matters entirely for themselves but must come to terms with society's demands for efficiency, accountability and responsibility. But there are different ways of satisfying these demands from outside the school: some ways give schools greater discretion, while others restrict the school's freedom. A practical example of this is given in the preceding paper in relation to "virement". But the demand for accountability may also be made in such a way as to discourage initiative; or it may allow a school to take risks in a new venture while providing a check to limit the consequences of failure, especially as these affect individual children. To refer again to our definition of creativity, which includes rejecting change, administrative approval should not always be limited to schemes that are certain to succeed, but should sometimes also include "permission to fail". At present, the innovatory school feels an obligation to succeed: equally, the conventional school may persist bravely but blindly in a hopeless task: creativity includes the capacity to recognise failure, and adapt or reject in consequence. Thus, the relaxation of a demand for sharp accountability may help schools to face up to the problem of failure, and to develop a more effective response.

It is wrong to assume that increased freedom necessarily results in increased creativity. Greater autonomy for schools may expose them to the influence of pressure groups. The independent private school may be less free than the state school if it is wholly subject to the demands of parents. Also, we must not regard the influence of external pressures on the school as purely negative, for they give a necessary orientation to the school system as a whole and impose a valuable co-ordination on essential points of national policy.

(ii) Organisation and relationships within the school

The second cluster of factors that affect the creativity of the school is concerned with how the school itself is organised, the authority structure and the social relationships generally

within the school. The paper which discusses this problem in detail outlines different forms of authority which may be adopted in school: from the autocratic through various forms of delegatory and consultative to the participatory system in which decisions are made by the whole school. The two extremes are the "vertical" or hierarchical, based on strong authority and accountability between levels, and the "horizontal" in which there is collective accountability through consensus among equal colleagues. Again, we must not assume that the most democratic arrangement is the most creative. A participatory structure may be resistant to change, or be vulnerable to pressure from vested interests, or - remembering that creativity is not just the acceptance of change - be influenced too much by whims of fashion. In an autocratic system, only one person needs to be persuaded of the value of an innovation, and this person has both the opportunity and the obligation to view each aspect in full context. Perhaps the autocratic system may also be well suited to generating new ideas, a sphere where individuals often play an important role. But there is also the need to "institutionalise" change, to ensure that the new practices take root; and this is possibly the greatest weakness of our present structures. "Why is it", one participant asked, "when there are so many prophets of change, so many examples of fresh beginnings, that school systems change so slowly? What prevents the new and exciting from becoming an established part of the school system?" Ideas are implemented only if people accept them as their own. One important aspect of the internal organisation is the incentive it offers to individuals to accept change - coercion, persuasion, inducement, reward. But the problem goes beyond incentives to accept change, for it is not just a matter of determining which structure is quickest to respond to an initiative from the central authority. The concept of creativity includes also the capacity to adapt, or even to reject, initiatives. The internal structure is clearly of crucial importance here.

Though we may not be able to establish simple rules on these issues, it would be helpful even to know the criteria that apply. For example, size of school and opportunities for consultation may be important factors. There is a trend in many

educational systems towards larger units, justified on grounds of economy and opportunities for specialisation and choice. A common complaint is that large units prevent effective social relationships. The optimum size of a school - or the optimum size of the units in the sub-structure - is thus a basic point; and this in turn is dependent on the nature of the decisions to be made. Since the decisions to be made vary according to the administrative relationships between the school and the central or local authority there is here an interaction between the first two groups of factors. Possibly, where the administrative structure severely restricts the school's discretion so that only relatively minor decisions are within the power of the school, limitations on size apply less rigorously. A change in the system of administrative control, however, may require a revision of the internal organisation of a large school to allow opportunities for consultation, whether this is done by a system of plenary staff meetings, or a representative system, or by delegation.

Whichever method is favoured, the internal arrangement of the work of the school must provide time for consultation and for working out new ideas. In a school that is not involved in innovation, staff may have a reserve of time and energy because established routines reduce work. When a school becomes involved in innovation, new demands swallow up time, and there is seldom opportunity to reflect, to discuss, to become informed and to evaluate unless time is specifically set aside for these purposes.

Till now, we have discussed various static structural designs of school organisation. There is also a dynamic dimension: how does a school set about changing its internal organisation, and what is the sequence of development? It would be helpful to have a step-by-step documentation of the introduction of innovation in various schools, - for example, when a decision is made to adopt a thematic approach to the curriculum in place of the conventional subject divisions, or to abolish streaming by ability or to use team teaching or individualised learning systems, or to set up a school council. A description of a process such as this could provide no more than a general guide, for each school will differ and each must develop its own structure, within certain

limits to take account of the special characteristics of school and staff. Flexibility to allow for continuing development should also be provided for, and some guidelines on these points are needed.

(iii) The professional support to the school

The prospect of change arouses anxiety: teachers tend to feel insecure as they are given a wider range of choice. A new curriculum destroys the confidence of the experienced teacher, making him feel out of date and useless; even the suggestion of change may be regarded by teachers as a criticism of their professional skill. Thus, the first effect of change is to remove the security of what is familiar and comfortable. An essential task, therefore, in strengthening the creativity of the school is to provide supportive structures to help schools and teachers to deal with uncertainty.

What form should these supportive structures take? Two forms are required: short-term interventions and longer-term strategies. The longer-term strategies may involve some fundamental changes in the administrative structure of the system and in teacher training, both pre-service and in-service. Short-term interventions must be carefully planned if they are to support creativity and not be a substitute for it.

For example, one device for providing immediate support to schools is the use of advisers, advisory teachers or diagnosticians or inspectors in an advisory role. These advisers will be under pressure to give practical advice and help, to provide answers to questions, in the role of expert or specialist. They will themselves be anxious to justify their role, and so they will strive to convert teachers to their own new orthodoxy. If they are part of the authority structure, and have a say in the promotion system, they become a substitute for creativity instead of a support, and their advice becomes concealed coercion. The task of the intermediary adviser, therefore, must be clearly defined, and his role should be understood by the teachers. His task is to transfer his capabilities to the teachers: he must make himself dispensable.

The longer-term strategy involves the creation of an appropriate infrastructure to support creativity. This requires the supply of a wide range of resources - teaching materials, information services, centres where teachers can meet, and an administrative structure for the management of these centres. Resource centres, both national and local, have considerable potential for strengthening the creativity of schools, but as yet little is known about the most effective form of such provision. The specialised national centre has obvious strengths, but it may not be able to offer prompt feedback to schools - and it would seem essential that national centres should be complemented by a network of local centres which establish direct contacts with their schools. Should the resource centres merely respond to teachers' needs and requests, or should they seek to act as change agents in school? There is a danger that, by their selection of packaged curriculum materials, resource centres may tend to impose on schools the values and teaching styles implicit in the design of these materials. Teachers may decline to use the facilities offered if these are seen as limited in range, or they may use the materials in ways different from what was intended in their design. If the centres are to serve their clients, the teachers, in the most effective way, the work of the centres must be structured so that it does not make the schools more passive and receptive, but is a learning process which leads towards "auto-innovation" by the schools. This process requires the strengthening of the capacity of the school to determine its own needs in terms of support. The resource centre does not merely supply what is asked, nor stipulate what can be supplied: it must operate on the basis of the school's needs and develop its service by encouraging new insights among the teachers. Thus, one hallmark of good support is its 'culture-compatibility' - how effectively it takes account of the climate of opinion in schools and of the insecurity of the innovating teacher and recognises the gradual nature of the change process.

A quite different form of professional support is the contribution made by educational research - or the contribution it ought to make. Many people complain that educational research makes little impact: teachers have little faith in research findings and researchers pay little attention to the opinions of teachers. There is a long-term influence of research in shaping

the teacher's perception of his work and his pupils, in moulding attitudes and objectives and in providing concepts such as 'needs', 'growth', 'intelligence', 'deprivation' and so on. But there remains a gap between the research worker and the teacher which must be bridged if research is to provide effective professional support to the school.

(iv) Interventions for strengthening the school's creativity

There are other forms of assistance that can be made available. In the concluding paper of this series two forms of intervention are singled out for special consideration: in-service training of teachers, and the use of consultants in a structured procedure, such as "Organisation Development", which is described in detail in the paper. Both strategies have much to offer; but in both, as we have noted with the three previous sections, there are difficulties and questions which require to be discussed. Too often, when faced with a malfunction, we think we have found an answer in setting up a course of training for those responsible. (University teaching and management skills for headmasters are two such examples). But though in-service training of teachers can make a valuable contribution to strengthening the creativity of the school, as yet we do not know what kind of training is best, who should be given it (and who should decide this), under what conditions, for how long, and many other questions. The concluding paper lists suggestions on content, linked to the concept of organisation development: no doubt there are other possibilities. Many countries are now beginning to make systematic provision for in-service training of their teachers, and consequently these are urgent questions.

The second strategy, calling on an outside expert to advise us, is commonly applied in other areas of human activity. The goals of organisation development, however, are not to provide ready-made answers but to help schools to set up a process to identify problems, find solutions and make decisions, through a sequence of interventions, clarifying communication within the school, establishing goals, uncovering conflicts and interdependence, and improving group procedures for discussion. There are,

of course, difficulties. Intervention like this in a school's affairs must start from an invitation from the school, or it is likely to meet with non-cooperation or resistance: the schools that ask for help may not be those that need it, and vice versa. Is it possible for consultants to be non-directive and value free? Is it sufficient merely to open up questions and bring conflict into the open? The two strategies may be combined if training is directed towards the skills of giving and receiving assistance of this kind. The distinctive feature here is that we are treating the school as the basic unit, whereas most in-service training tends to be directed to the teacher as an individual.

THE INTERRELATIONSHIP OF THE FACTORS

At this point it is perhaps appropriate to re-emphasize the interdependence of these various factors, for an understanding of their interaction, rather than of the operation of any one factor, is necessary for strengthening the creativity of the school. Some of the difficulties which have been encountered in innovatory developments in education have occurred through failure to realise that a change in one aspect of a system affects many other aspects, and that innovation can be sustained only if it is developed from a thorough understanding of the complexity of the process.

Some examples in addition to those already given may help to illustrate the point. Changes in the authority structure in a school (category 2) affect relationships within the school that are affected not only by the size of the school and the opportunities for consultation and contact (all category 2), but also by the layout of the school building and the provision of staff rooms (category 1); the feasibility of the changes in authority depends on the discretion permitted to the school, on staff appointments and on considerations of economy in the deployment of staff (category 1). The operation of "organisation development" (category 4) and the contribution of professional advisers (category 3) affect relationships within the school. Similarly, in-service training (category 4) must take account of financial constraints (category 1) and will seek to exploit the effective use of resource centres (category 3). A school that embarks on

a substantial curriculum revision, attempting to develop a theme-oriented approach, for example, must take account not only of the internal organisation of the school, but also of financial constraints, the restrictions imposed by external examinations and the availability of adequate materials and resources. A strategy for change is unlikely to succeed if it identifies one aspect only as a key factor in the situation and neglects to take account of its interaction with all the factors which have been outlined in the preceding pages.

External and internal factors are more closely interrelated than we realise. The distinction often made between centralised and decentralised educational systems can thus be misleading. The essential difference between systems, as they affect the creativity of the school, is how far the various constraints allow discretion to the schools. In a centralised system a school may have more independence, in certain respects, than in a decentralised system that applies detailed restrictions. Where control of the system is concentrated in one large centre remote from many of the schools in the system, the detailed supervision or control at grass roots level is more difficult to exercise, so in practice the schools may have more freedom. In a decentralised system schools are much closer to the controlling centre and their day-to-day working is more open to observation - and therefore sometimes to control by the local authority.

STRATEGIES OF PROBLEM-SOLVING

It must be clear from the previous discussion that creativity, as we use the term, is not just a quality of unique individuals or of unconventional institutions, but a style of problem-solving. When a school realises that something is wrong in its mode of functioning, and decides to remedy the weakness, it begins to be creative. Ideally, perhaps, it is the secure and stable school which ought to initiate and test innovations, for it has the reserves of energy and resilience to tolerate stress. In practice, change often begins from facing up to problems, rather than by planned interventions. There is an approved "text-book" procedure for introducing innovation, starting by defining objectives,

preferably in behavioural terms, and then proceeding to outline a programme of action to achieve these objectives. Behavioural objectives can be valuable in obliging people to think carefully and precisely about what they want to achieve, and objectives when formulated help to indicate what should be done. They are less effective in excluding what should not be done, for they do not specify what is not wanted. Ideally, the school should strive to achieve agreement on objectives before embarking on a course of action. There is, however, a different style of working which would seem to be closer to practice. The problems the school faces are the starting point, and while the discussion of objectives is not neglected, it is not considered necessary to secure full agreement among the staff. (Sometimes, indeed, agreement is evidence that the objectives have been defined so as to avoid the necessity for any substantial change). The school is able to make progress because its internal structure and the external support are such as to allow it to tolerate a fairly high level of stress in solving the day-to-day problems which arise. Though the strategy is untidy, it is flexible; and it works through the continuing participation and interaction of all the staff. At present it is not possible to say that one of these strategies is right and the other wrong. They are complementary approaches, like inductive and deductive reasoning, and our concept of the creativity of the school applies to both.

HOW DO WE ASSESS THE CREATIVITY OF THE SCHOOL?

The definition given earlier is that creativity is the capacity of the school to adopt, adapt, generate or reject innovations. How then are we to assess the creativity of the school? It is not to be measured by the number of changes introduced, nor just in terms of new practices or new products, for it includes the capacity to reject change where this proves ineffective or inappropriate. On these terms a school is creative if it decides to continue as before, provided it does so in a conscious way, fully aware of the issues involved. A school must be discriminating in its response to change, for not all change is for the better. There is the "wild innovation" (l'innovation sauvage), the gimmick, the fashion and the fad: in the 1970s

these are to education what inflation is to the economy. It is easier to say what creativity does not include than to describe it in terms which can readily be observed and assessed. It is not just a matter of freedom for the school, as we point out later. Nor are we so naïve as to equate it with contentment: the creative school is not necessarily a happy school, well adjusted to its environment - though we hasten to add that it is not an unhappy place, full of strife and restlessness. The term "creativity" is carefully chosen, for it is a quality of the intellect; and the quality we seek to assess is an intellectual quality of the school. Earlier it was suggested that there were three stages in the process of problem-solving: confronting problems, responding to problems and evaluating the response to problems. Creativity of the school, therefore, is to be assessed by the awareness within the school of the problems which it faces, its capacity to devise and adopt solutions, and its willingness to evaluate its efforts, and, in the light of this evaluation, to adapt or reject these solutions, or to generate new solutions.

THE INFLUENCE OF THE SCHOOL ENVIRONMENT

This review so far has been limited to the first four of the five clusters of factors above. The fifth is the influence of the school environment. The term is intended to cover the whole social context, the climate of opinion within a country, the social and political structures and the less tangible but not less important cultural norms. Each community has its distinctive expectations of its school, and there is a certain stability about these assumptions, for we each shape our expectations from our own personal experiences of school. If we ask which is the most important factor influencing or limiting the creativity of the school, each person will tend to answer within the context of his own experience and his country's educational system - incentives, finance, personal relationships, the administrative structure, the examination system - each tends to choose a different answer. In discussing educational issues we tend to reject the solutions of others because they do not fit readily into our framework of thought. One function of education is to liberate us from the limitations of our own experience, but we have not yet worked out

an effective language for discussing educational problems across the boundaries of national systems. Differences between countries (and similarities too) are demonstrated in the national contributions from the countries participating in the OECD Workshop which are to be published in a separate volume.

The question that arises is this: are there generally valid answers which apply across the boundaries of educational systems and differing cultures, or must we seek a different set of answers within each system? Though the answers may be different, they may follow a common pattern. Inevitably, this pattern tends to be general and abstract, and consequently it is difficult to communicate the conclusions to teachers and administrators whose orientation is highly practical and not theoretical.

One very general form of answer, though fundamental in its implications, is that a shift of attitude is needed. In the past we have tended to regard any change as a disturbance of normality: on this view change is a transitional stage between one period of normality and another. Hence we speak of the problem of change, or the challenge of change, and not of the stimulus of change. The new situation is that change is normality, and our schools must be given an in-built capacity for constant adjustment. If this seems too demanding a requirement, there is an analogy with living organisms. (Education has frequently used - and misused - the "organic" metaphor: what is implied here is that we should be trying to develop the school as an organic unit). A machine can be programmed to adjust to change, in the way that an automatic gear-box in a car responds to the contours of the road. But a biological system is of a different level of complexity and has its own self-regulating capacity. Metaphors are misleading. To speak more directly, the school has been considered for a long time as a passive element in society, receptive and obedient, but it must now become a more active partner in its own evolution.

To say this is not just to call for freedom for the school. Freedom for whom - for teachers, pupils, parents, administrators? Certainly, there is no claim for the school to be free from responsibility. Indeed, it is an open question whether freedom is a necessary condition of creativity. Creativity is sometimes

demonstrated in the response to lack of freedom as in the imaginative work done by teachers in old school buildings with the most unpromising pupils. Possibly, if schools were given more freedom, with no other supporting provision made, the initial effect would be restrictive rather than creative. Creativity can be encouraged in a highly structured educational system as well as in an open system. The provision within the system is more important than the system itself. Admittedly, in a structured system it is easier to be non-creative; a more open system should force the teacher to think for himself - though if the situation is too insecure it may press him to fall back on safe, conventional practice. To summarise, therefore, this is not just a call for freedom, but a call to establish a system of interrelated provisions which will have a positive impact on the problem-solving capacity of the school.

In the past, there was a general consensus on values which allowed schools to be given a considerable measure of freedom - though social pressures ensured that this discretion was not fully exercised. The consensus is less certain now, and the pressures no less strong, tempting schools to insulate themselves from controversy. Anxiety about change is not limited only to teachers. There is a fairly widespread uneasiness about the lack of stability and security in modern society. It is true that those who have most to lose are most likely to oppose change, or to fear it. Among those who carry responsibility there is often a feeling of uneasiness about the prospect of increasing the autonomy of the institutions for which they are responsible. It would be surprising - even irresponsible - if they did not hesitate to relax their vigilance: there are others ready to move in who have no scruples about exploiting a situation and manipulating it to forward their own aims or those of the pressure groups which they support. The person who carries responsibility for the efficient operation of the school system may feel that, in strengthening the creativity of the school, he runs the risk of losing control altogether, and of being accused of abdicating his responsibility. Even the setting up of a consultative machinery may restrict the power to cope with a situation that seems in danger of running out of control if one has to discuss everything with everybody

before anything is done. Levels of decision must be established clearly, and adhered to. The solution, however, is not to be found in resisting change, nor is it necessary to go to the other extreme and surrender to the pressures for change: the solution must be found in developing the capacity of institutions to deal with change.

There is further risk in all this which should perhaps be mentioned - the risk of making too much of a technique of manipulating human relationships. Unfortunately, it does not follow that when we fully understand the mechanisms that affect human relationships we shall all be happy and well adjusted. The self-conscious scrutiny of relationships is a dangerous activity which may sometimes destroy the capacity to build relationships. One of the rewards in teaching - and in administration - is the personal relationships, which are all the stronger if they operate at a sub-conscious level. Obviously, a person who has been trained in the social sciences is better able to understand himself and others, but he must be on guard against the conscious and deliberate manipulation of others. As in Plato's metaphor of the cave, when we have examined the skills of relationship in the harsh light of the intellect, we must be prepared to return to the less certain world of reality. If the principles which we have established have not become part of an intuitive response to change, we may be worse off in trying to apply a set of rules in a conscious, mechanical way. The discussion in these pages will be criticised by some as too abstract, but they are misunderstood if they are expected to provide a set of practical rules. Their purpose is essentially to allow an understanding of the underlying theoretical problems, so that each person is better able to make for himself the decisions that are appropriate in his particular situation.

THE ROLE OF OECD/CERI

This point can be extended to explain the objectives of the 1972 OECD/CERI Workshop at which the papers that follow were presented and discussed. Earlier, reference was made to the national resource centre: its task is to provide professional support in developing the creativity of the school, but to do this

without in any way diminishing the freedom of the institutions which it serves, without affecting their responsibility, or limiting their initiative. The function of a national centre is to help institutions to understand what is involved in the process of change, and to help them to develop their own techniques for managing this process. The task of OECD/CERI is rather similar: it is to give international professional support but again without diminishing the responsibility or initiative or creativity of the separate Member states in dealing with the process of change in their own countries.

People want to be given answers to their questions. A ready-made answer is seldom adequate, and to offer it may encourage a false dependency on others to find solutions for us. We have to learn to tolerate the stress of working out our own problems. But there is surely an intermediate position between withholding help and offering a recipe for action; and in the context of the creativity of the school the aim of the Workshop was to try to discover how best to achieve this intermediate position.

III. ADMINISTRATIVE RELATIONSHIPS BETWEEN THE SCHOOL AND OUTSIDE INSTITUTIONS

by

Maurice Kogan,
Professor of Government and Social Administration,
Brunel University, Uxbridge, U.K.

This paper attempts to define some of the organisational categories useful in considering (i) the relationships between the school and its wider institutional framework; (ii) the important structural relationships in more detail; and (iii) how the school's freedom to be creative and developmental might be reconciled with the need to be socially responsible and accountable. The reader will notice congruence between the many points made here and some of the descriptions of national systems communicated to the Workshop, and particularly Egil Bakke's paper "Financial Instruments and Decentralisation of Decision-Making Power" (see Technical Report No. 1).

THE ANALYSIS

To analyse the place of the school within its governing institutions and political environment it is necessary to state:

(a) the objectives of education and, more concretely, the operational, or prime, or core activities;

(b) the controlling and collating activities (non-operational activities) necessary to ensure that objectives are pursued in a coherent and connective fashion;

(c) the main organisational relationships that link together the main roles and parts of the educational system.

When these categories have been stated and clarified, it is possible to put together a model of how freedom and accountability can be reconciled. The English educational system will be used to illustrate the points raised.

OBJECTIVES AND OPERATIONAL ACTIVITIES(1)

It is not necessary to elaborate here the objectives of English education at school level. In brief, they can be categorised as: enabling pupils to achieve individual autonomy and power through acquisition of skills and knowledge; socialisation; enhancement of the economic strength of the country; the provision of elites; the redistribution of wealth; the maintenance of the established religion, and so on. Nor is it necessary to discuss further the conflicts between some of these objectives. It is more important, for the purpose of the present more restricted analysis, to establish what are the legitimated and expected activities of schools which contribute to the pursuit of these objectives. There are several ways in which these activities or functions can be stated. The following list is a deliberately factual inventory of at least some of the main operational activities that a primary or secondary school in England is concerned to pursue:

- provision of teaching and learning processes;
- development of educational processes;
- education of public and of the community;
- training of teachers for the whole system (by providing practical experience) - this being a higher educational function rather than a function provided for the school's own benefit;
- provision of school meals, milk and medical inspection;

(1) "Operational" is the term used for activities directly related to the purposes for which an institution exists. They could equally well be called "primary" or "core" activities or functions.

- provision of appropriate buildings for educational purposes (this being one of the characteristics that differentiates a publicly maintained school from other forms of education);
- the assessment of pupils (through examinations and the giving of references, and so on).

These activities vary in importance; but all relate to objectives of the school system. They are here called operational activities as distinct from non-operational or supporting, or secondary activities.

NON-OPERATIONAL ACTIVITIES

For operational activities to be pursued within adequate control, collation and programming - for purposes both of accountability and of wider development - it is necessary that a schools system also undertakes non-operational activities. Within most educational systems we find the following:

(a) Financial work

In essence this consists of:

(i) the collation of budgets required by the performers of operational activities (heads of schools, for example) so that decisions can be made on resource allocations;

(ii) the control of expenditure once approved. Desirably this control is in the form of a "staff" instruction which, in effect, warns a manager that he is going outside policy;

(iii) the audit of financial affairs. This is however, improperly regarded as an internal function. Audit is properly thought of as external to the organisation which is being audited to ensure that financial and other transactions are conducted with propriety.

(b) Personnel, establishments and organisation. This set of activities is complex. It includes:

(i) the recruitment, in-service induction, progression, setting of conditions of service and retirement of staff, educational and otherwise;

(ii) decisions about the allocation of manpower as between the individual educational institutions and other parts of the educational service.

(iii) creating and sustaining patterns of organisation. This group of activities (organisational development) is often not sufficiently well defined and legitimated. It must both control and enhance the development of a total education system, and without it in-service training is an empty activity.

(c) Provision of technical services. This might include the provision of supplies on the demand of those who perform operational activities, and the provision of advice on design of buildings. It might also, however, include the provision of educational advice (from advisers and organisers) to those who offer the teaching and learning processes. This point will be discussed more fully later.

(d) Programming. This non-operational activity is present in complex organisations but has only recently been defined (as corporate planning and under other names). It tends to be the type of activity allocated to the deputy head of an organisation and is concerned with ensuring that all activities form a logical and coherent pattern, that decisions are presented to governing bodies at the right time and with the right degree of sanction from within the organisation;

(e) Legal activities. A public educational system has to conform to the public law of education - somewhat broadly stated in England but strongly stated elsewhere. This activity is, therefore, concerned with preserving the legal personality of the service and ensuring that decisions made within it conform to law.

DEVELOPMENT

Development is the examination of present activities with a view to specifying changes (possibly as a result of research and evaluation, or of professional perceptions of performance, or of client demand) thus ensuring that objectives are refreshed and changed as necessary. It is particularly pertinent that changes in educational purposes should carry with them changes in organisation which might be the subject of specified organisational development. Organisational objectives interact with movements in the organisation's psychology which in their turn affect structure. This means that in-service training and other resources intended to carry through development have to become firmly related to changes in policies and objectives and require effective institutional linkages with the management structure. More generally, development work is the organisational way in which creativity and adaptation can be legitimised and, where necessary, specified. In creative and participative systems development work might well take the form of teachers being expected to evaluate their own teaching in the light of changing knowledge and pupils' needs. Development is not simply a task for management; it is the one task that requires specification, encouragement and implementation throughout all but the most mechanistic systems. Whether it is an operational activity (that is, something worthwhile for its own sake) or a non-operational dimension of operational activities is an open question.

Table I (below) shows the operational and non-operational activities in diagrammatical form. Table III shows how any operational activity is constrained and collated by a range of non-operational activities. The interlocking of the two sets of activities is important for depiction of the role structure as between executive roles, staff roles, and other roles such as service givers.

A non-operational activity has no output that is meaningful except as a decision about the quality, intensity or level of performance of an operational activity.

TABLE I

Operational and non-operational activities in an educational system

	Non-operational activities
	Financial work
	Personnel, Establishments and Organisation
	Provision of Technical Services
	Programming
	Legal Activities
Operational activities	
Provision of teaching and learning processes	
Development of educational processes	
Education of public and of the community	
Training of teachers for the whole system	
Provision of school meals, milk and medical inspection	O B J E C T I V E S
Provision of appropriate buildings for educational purposes	
The assessment of pupils and preparation of them for assessment	

The relationship between operational and non-operational activities is important in terms of the authority of the schools to set norms for their own behaviour and development. For example, a school may set its own pattern of learning procedures; but this pattern is circumscribed by decisions made on finance, staffing and so on, through non-operational activities performed by the local authority.

THE MAIN ACCOUNTABILITY STRUCTURE

Two important questions may now be asked:

(a) through what formal authority relationships are decisions about the performance of operational and non-operational activities mediated? What are the varieties of relationships (for example, manager-subordinate, as against free contractual or collegiate relationships)?;

(b) what is the difference between decisions made at different levels of a system (i.e. national, regional or local authority and prime institutions - schools)?

To examine the formal authority relationships, we need to consider how far the educational process affects its management structures. It can be argued that:

(a) where education is seen to be a strongly instrumental process relating to a well programmed system, a strict hierarchical structure, with strong management and inspection roles, with fairly small discretion at the school level, follows logically. Society is assumed to know what it wants, and how to get it, and can therefore establish machinery for obtaining results. This assumption is described and implicitly criticised in Amaro da Costa's paper, (paras. 4 and 10, Technical Report No. 1).

(b) where it is assumed that teaching/learning processes rely on interaction between individual teachers and pupils within a broad educational technology and a wide knowledge framework, strong management systems are not so appropriate. There is a premium on expanding discretion within increasingly wide prescriptive limits.

At the Lisbon conference, it was questioned if educational systems could contain combinations of these two sets of assumptions and thus produce organisations mixing strong accountability and

individual freedom. Plainly, some systems do produce such combinations as when a total school is accountable to the system which governs it but is collegiate in style, if not totally collegiate in management structure. (See the following chapter.)

Thus it would appear that assumptions about the technology of the process determine assumptions about the strength or otherwise of management controls. The armies of the world are strongly hierarchical because the technology of war demands that men move at precisely the point in time and to precisely the place where they are instructed to move. The proponents of increased creativity in the schools argue that educational excellence demands the growth of personal artistry and professional competence in individual teachers who are trying to induce the same in individual children. This leads them to argue for wide discretion, or even autonomy. But if the schools are completely autonomous, public accountability becomes difficult to obtain.

The different authority relationships, to answer the question in paragraph (a), are, then, as follows:

(a) Most school systems have a hierarchical structure in which there is the equivalent of manager-subordinate relationships between the providing or governing authority, the school head, and the assistant teachers in the school. In many countries, this hierarchical relationship also extends between the central government and the local authority. In England the relationship between the central authority and the local education authority is not that of a manager to a subordinate body but, in effect, something half-way between this and free contractual. The central government exercises strong authority through its right to determine the general level of local authority income and through other key controls. But it does not exercise the authority of the manager in prescribing levels of performances in the prime institutions.

(b) The universities provide an example of free contractual relationships. In many countries independent universities receive most of their funds from grants made by the government and are free, within the most general of understandings, to provide courses in their own ways. The prescriptions from the centre are, in effect, understandings that a university will provide a certain number of places within agreed subject categories at an appropriate level. But, in practice, once the grant is given, universities are free to interpret the agreement in their own way and can only be controlled retrospectively - that is, when a renewal of the contractual relationships is considered.

(c) At the institutional level there is a choice between a management hierarchical structure (in which the head is the manager of teachers) or a collegiate structure, as in Oxford, Cambridge or hospital consultant organisations in England, where individuals are, in effect, on a freehold to give education according to their professional lights without prescription by a manager.

In Table II, the example of England and Wales is taken, partly because these are the countries the author knows best, but also because it is the most complex and difficult to define(1). The table attempts to show how interventions are made at the different levels by the DES, local education authorities, schools and individual teachers. By examining the difference in the decisions made on any single activity it is possible to begin to analyse the prescriptions created by the organisation and the discretion permitted at each level in the performance of activities. Take, for example, the operational activity, provision of buildings. A school may decide that it cannot develop its teaching and learning processes adequately without a radical alteration in its physical arrangements. It makes a decision to request a new school building,

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(1) Many of the same points are sensitively explored by Hoyle in Technical Report No. 1.

or an alteration to buildings, for that purpose. It is within the discrimination of that school to make such a request; but it is immediately subject to a large number of decisions made by the local authority. It must decide not only its priorities as between the development of one school and, let us say, the replacement of an obsolete school building elsewhere, but must also consider the proposal in terms of the educational philosophy it is prepared to sponsor (should it encourage an open plan school with a parents' meeting room, or does it prefer a more traditional pattern? What is likely to be the elected local education committee's view on philosophies such as these expressed in bricks and mortar?). The school will remain free to continue open plan teaching without a new building, but prescriptions immediately come in as soon as resource demands are changed. Ultimately, the central government may determine the issue if a major building project is required. There may be national decisions requiring the building of new schools for additional populations or the replacement of badly obsolete buildings before building is allowed for educational development. This example can be further clarified by tracing "Building" across the "decision" columns in Table II. In practice, of course, many decisions are not made in terms of explicit authority relationships but as the result of negotiation between parents and schools, teachers and heads, heads and the local authority, the local authority and central government. Residually, there are authority relationships but these might only be invoked as a last resort.

Figure 1 shows in diagrammatic form the main accountability and authority structure through which the English system works.

PUTTING THE MODEL TOGETHER

In the preceding paragraphs I have specified some of the main components of analysis of those activities that are directly concerned with the pursuit of objectives (operational) and those activities concerned with their control and collation (non-operational). I have also pointed out that ultimately the whole educational system with its complex pattern of controls exists to enable the schools and other educational institutions to get on

TABLE II

Decision-taking relationships in the English educational system

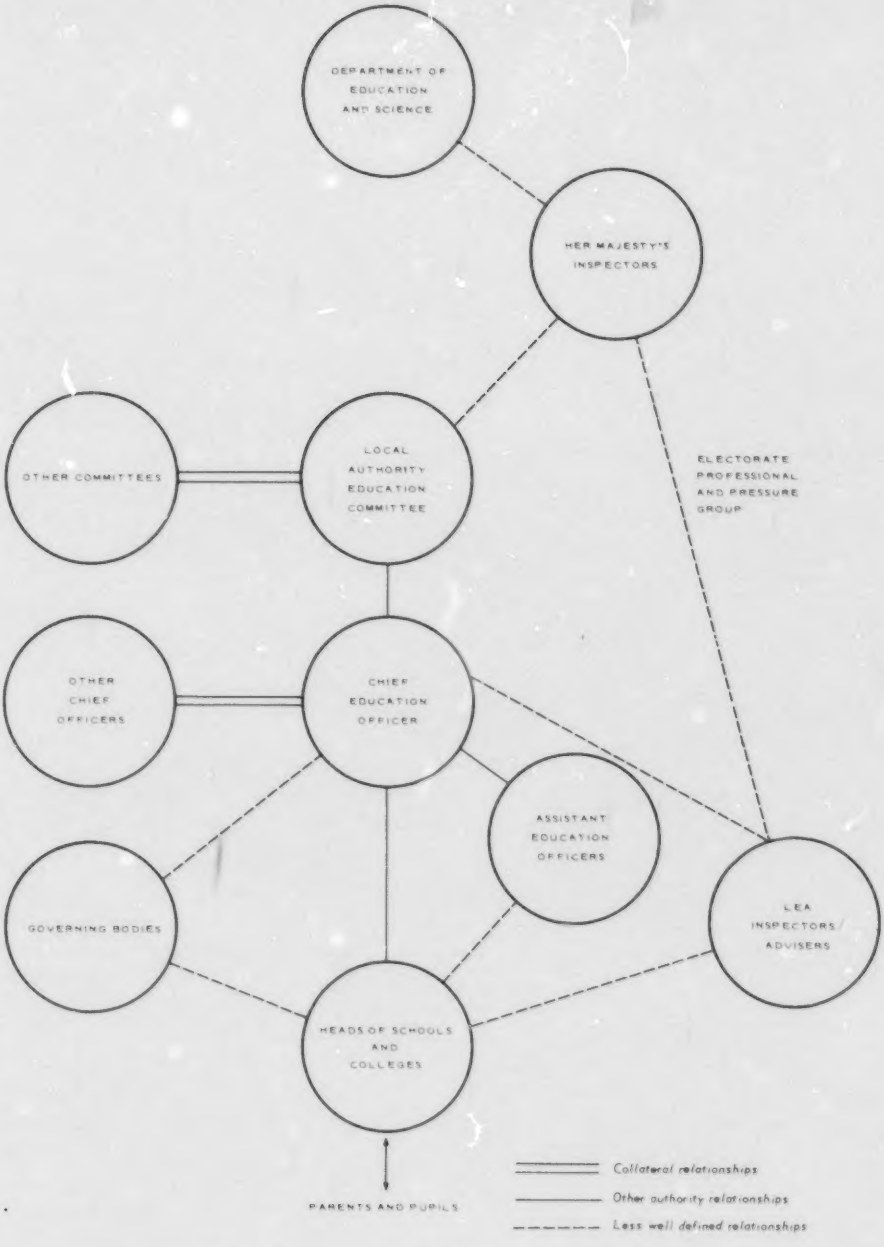
TASKS	GOVERNMENT DECISIONS	LOCAL AUTHORITY DECISIONS	INSTITUTION DECISIONS
1. Decisions on structure of education - age of entry, age of compulsory retention.	1. DES[1] proposes laws and controls major resources through building programmes, etc.	1. Able to vary age of transfer between primary and secondary, lower and upper secondary and further education institutions (1963 Act).	1a. No discretion on overall structure. b. Discretion on individual allocations, e.g. vertical and other groupings.
2. Decisions on finance of education.	2. DES negotiates elements of rate support grants through Department of Environment. (Some 54% of Local Government finance in 1965).	2. LEA[2] decide proportion of income (grants, rates, etc.) to devote to education generally. And decide all individual projects and rates of capitation funds for books and equipment.	2. Decide how to spend capitation funds for books and equipment.
3. Building.	3. DES decides, within Treasury constraints, total amount of major and minor building projects. DES decides lists of major projects on basis of LEA proposals. Does not propose projects.	3. LEA decides which major projects to propose and which minor projects to build.	3. School decides which projects to bid for or point out needs.
4. Teaching and learning processes.	4a. Statutory controls over length and number of school days. b. Statutory controls over acts of worship and RE. c. Control, through Schools Council, of patterns of secondary school examinations. Ditto through joint committees and other FE examining bodies. d. Advice of HMIs (control is weakening).	4a. Decides style of education through appointments of heads. b. Advisory services. c. In-service training. d. Decides overall organisational patterns through choice of selection and secondary school examinations. e. Local inspectors may make quality judgements affecting, for example, teachers' promotions and flow of resources.	4. Free to set internal organisation, choice of subjects taught, style of education - formal as against informal, and so on.
5. Provision of teachers.	5a. Control of total numbers reaching and leaving colleges. b. Party to salary and conditions of service negotiations. c. Operates "voluntary" quota system. d. Has no part in teacher employment or in appointments.	5a. Settles establishments for each institution. b. Controls appointments of heads and deputies. c. Runs promotion system. d. In-service education.	5a. Sometimes help decide recruitment. b. Allocates teachers' duties. c. Gives special responsibility allowances (formally recommended to LEA). d. Can participate in the reward system through references and so on.
6. Development of system.	6a. Establishment of objectives (but not explicit). b. Decisions on length of school and training life. c. Decisions on, for example, degree of selectivity throughout the system.	6. Makes decisions on general response of education service in area to the needs, by providing institutional frameworks, methods of improving service through in-service training, nature of relationships with community and other services and parents.	6. Responsible for deciding many of the objectives of the institution - through decisions on formality or informality, relationships with pupils, relationships with community and relationships with parents. Evaluation of individual pupils.

(1) Department of Education and Science.

(2) Local Education Authority.

Figure 1

THE MAIN RELATIONSHIPS (ENGLAND)



with their work. So all levels of educational organisation are involved in activities common to the whole system (the use of a classroom in any school is drawing on resources made available nationally); but the contribution at each level must be differentiated in terms of the decision made at that level.

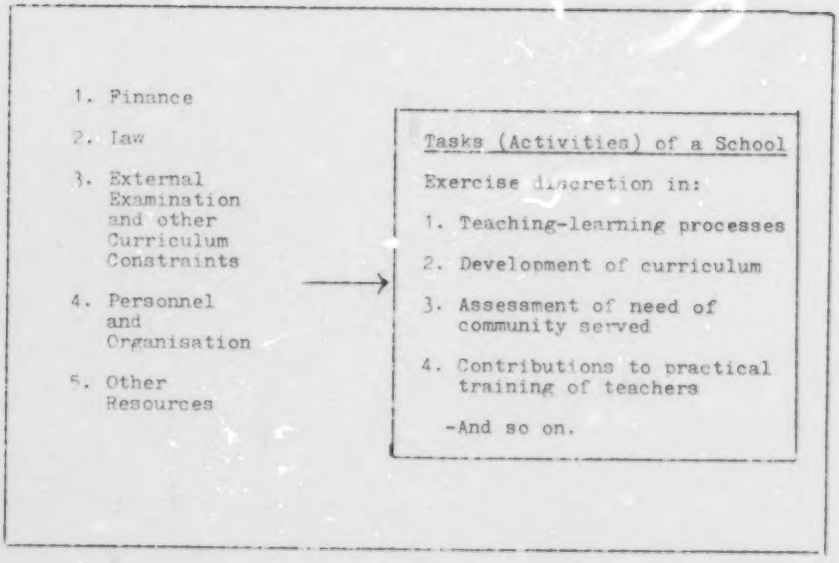
This differentiation is necessary if we are able to state both the freedom and accountability of the school. In Table III we show how the school's operational activities, the tasks that it must perform, can expand or contract according to the strength of the prescriptive limits. These might be expressed in terms of the operational activity itself - as when a national ministry orders the school to teach the use of the full stop by the time the pupils are nine years old - but they are more likely to be expressed in terms of non-operational activities as the organisation becomes more complex and as the controls are exercised some levels away from the school itself. For example, a national decision on teachers' salaries might affect the recruitment of teachers and hence the ability of the schools to provide teaching and learning. It is thus one of the limits within which an individual school must work.

The assumption here is that schools are not autonomous. This point is brought out clearly in G. Noel's discussion of the French situation in Technical Report No.1, paras. 1-9. The schools have freedom and discretion but this is exercised within prescriptive limits. And these limits themselves embody normative assumptions which are in effect stating that, for example, society will spend X on education and Y on health and will tolerate a certain amount of organisational freedom for schools, but no more. The way and style in which that discretion is exercised is, of course, the most powerful determinant in whether the schools are good and whether professional assumptions and personal values in the role holders are being exercised.

Table III takes up this point in more detail for the English system. The English school can be considered as the prime educational institution because it has wide discretion over the content and organisation of teaching and learning which is the main purpose of the system. It exercises this discretion within broad

TABLE III

The impact of prescriptive limits
on school activities



prescriptive limits. It is here suggested that degrees of discretion employed in that operational activity are a key variable in determining the creativity of the school. That discretion, and the creativity that goes with it, are not always easily created. In discussion, for example, some delegates questioned whether the schools had the capacity and the strength of will to carry so many of the decisions that a higher degree of freedom entailed. This point is also explored in G. Noel's contribution to Technical Report No.1, para. 34.

There is, furthermore, a general characteristic of multi-level organisations which is important here. At the level of the prime institution - the school - controls are exercised through instructions (if the school is hierarchical), or collective agreements (in such collegiate structures as Oxford and Cambridge or consultant organisations in British hospitals) which are, in effect, decisions about operational activities. ("Mr. X, would you please take the second year class in mathematics?"). But as organisation gets more complex - requiring control of, for example, thirty thousand English and Welsh schools - the decisions at the centre are more likely to be of a non-operational form. (The schools will assume a per caput expenditure of no more than £X thousand per year per pupil). The activity is thus controlled at one remove by financial, legal, or other non-operational stipulations which have, however, outcomes only in terms of operational activities. So, a central government department, be it ever so liberal, is determining the levels of activities in the teaching/learning processes; but, in the most decentralised systems such involvement might be in terms of the resources (e.g. numbers of teachers, quality of school buildings, or regulations about curriculum) within which the discretion of the institution is exercised.

SOME IMPORTANT DETAILED STRUCTURAL ISSUES

FINANCIAL AND OTHER RESOURCE CONTROLS

It would be hazardous to generalise about financial and other resource controls for all of the national systems of education. In this paper, the English system is referred to because, again, of its well-known intention to allow the schools to be free while preserving key national controls.

(a) Central government uses a variety of devices to establish prescriptive limits within which local education authorities may spend money. First, it determines a general grant for all local authority services which powerfully affects their quality without, however, specifying how this money should be apportioned between them. "Specific grants", by contrast, generally give central government a closer control over the purposes for which the money has been allocated. Thirdly, central government also states broad legal limits within which local authorities may raise their own money on a property tax known as the rates.

(b) The control over physical resources (buildings and so on) has several features. First, the total amount that an authority may spend each year, and on what major projects, is decided centrally on national criteria by the Department of Education and Science. (Attempts to modify these controls are being made at the present time). There are also national limits on minor works. As far as quality and design of buildings are concerned, however, the national system, in one of the most successful pieces of state intervention, follows the doctrine of the "ceiling and the floor". Maximum cost limits are prescribed. Minimum building standards and space standards are prescribed. But between these two limits local education authorities are free to design the best buildings they can, but with sophisticated and welcome advice from excellent development teams within the Department. This is the classic example of a central system encouraging the use of discretion within necessary statutory limits.

(c) As far as manpower controls are concerned, the local education authorities employ their own teachers, but within nationally agreed salary scales (which the government must approve), and within teacher quotas determined centrally by the D.E.S. after a "voluntary" abnegation of freedom by local authorities when teacher distribution was becoming a major problem.

EXTERNAL PRESCRIPTIONS OVER CURRICULUM

The English system prides itself on allowing schools to be creative by virtue of freedom to develop their own curriculum and internal organisation. This is a true judgement but prescriptive limits exist as follows:

(a) Such questions as the overall structure of the system - ages of entry and leaving, or transfer between different stages, length of school day, length of school year, and so on are determined by law.

(b) The secondary school examination system is laid down nationally on behalf of the Department of Education and Science by the Schools Council. But major issues of examination policy - the age of admission and type of subject structure that should be allowed, for example, are decided by the central government.

(c) At the local level, there is a variable level of prescription by inspectors and advisers who may affect the school's discretion to use certain texts and materials by making some more easily available than others.

(d) The extent to which teachers within a school are free is also indeterminate. In the liberal English system, headmasters and head teachers often maintain that they are "advisers" or "leaders" of their "colleagues". But there is strong evidence that the head of the institution is the strongest authority figure within it. He or she allocates duties to teachers, holds such sanctions as recommendations on special responsibility allowances or promotions within the school, writes references, and so on. Attempts to make schools more collegiate - through the creation of academic boards - are rare. And the appointment of head teachers is also an unclear area. For example, there is, perhaps, a case for establishing a system of external assessors - as with senior university appointments - which might make choices more independent of the local authority.

INSPECTORS, ADVISERS AND ORGANISERS

There is strong ambiguity (observed in several Member states) in the role of inspectors, organisers and advisers. See, for example, Portugal as described by A. Amaro da Costa, paras. 17-24 in Technical Report No.1. And there are differences in roles as between national and local authority or regional inspectors.

Central government inspectors have different functions:

(a) Inspecting for purposes of management and accountability systems, to include the assessment of performance by subordinate bodies. (This is intensively so in, for example, France and Turkey; less so where an intermediate level of institution has a higher degree of autonomy - for example, English and Welsh local education authorities.)

(b) Involvement in administration and standard setting for school examination systems (France, Sweden, Turkey and most other countries.)

(c) Carrying out of research and development for the whole system. But what degree of prescription does the development have?

(d) Advising the decision-makers in the central ministry. Giving advice is giving a service that can be rejected; but such advice becomes something different when viewed from the point of view of, say, a further education college, when the advice given to it is also given to the local authority's central ministry and may then affect its prescriptions as managing authority in terms of resources, courses to be approved, teaching staff to be allocated, and so on.

(e) Advising the schools - a professional service that may be accepted or not.

INSPECTORS (LOCAL LEVEL)

The functions listed above are to be found, with different degrees of intensity, at the national level. While local inspectors also have multiple roles, they do not have to advise management systems at two levels as do central government inspectors. But they, far more than national inspectors, may be involved (at least in England and Wales) with decisions on resources, with quality judgments on the schools and their teachers (e.g. whether a new teacher should pass probation, or the short listing for a headship) which might make it difficult for them to be advisers to the schools at the same time. This is a problem because the same body of expertise - an ability to relate sympathetically to schools while remaining a bit distant from them - is needed for both functions. Such roles demand high quality manpower and it would be difficult for any system to afford a double group of inspectors and advisers. Nevertheless, there have been attempts to distinguish clearly between them. For example, in some English local authorities, roles for "advisers" and "peripatetic teachers" have been created in the expectation that they will help schools who seek their services but that they will not advise management on the quality of the schools they are helping.

So far I have described some of the elements of the formal authority system - the legitimated and legally sanctioned system enabling work to be done and resources to be spent. This formal authority system is interlocked with the power system through which political, psychological and other pressures are applied to the formal decision-making process. Public opinion may exercise its influence through information media (see G. Noel, paras. 40-41 in Technical Report No.1) or through institutional arrangements which do not simply take information flows for granted. In England, for example, there are pressure groups such as the Confederation for the Advancement for State Education, and the Society of Teachers Opposed to Physical Punishment, while the local authority and teacher associations have recognised power to negotiate with government on major policy issues. And there are too (particularly as the participatory movement gets underway) several institutions that hover uneasily between power and authority. Of these, the

governing bodies of schools are the most obvious example; but ambiguities arise also in the parents' associations and the teachers' associations and the question may well be asked to whom they will be accountable.

GOVERNING BODIES, PARENTS AND TEACHERS

Governing bodies may be:

(a) Part of the management-accountability system. In this case they have authority over heads of schools although, in practice, the decisions they may take are severely circumscribed by the local authorities and their control over schools is generally reckoned to be weak.

Alternatively they may be:

(b) Consumer councils representing the clientèle. If they are, they cannot also be part of the management-accountability system. They can easily become socialised by the system they are supposed to criticise on behalf of the clientèle; or

(c) Part of an external review and criticism system. This is not consistent either with a management role or with the role of representing the clientèle.

With parents' associations there are distinctions between:

(a) Parental participation - as volunteers, observers, frequent visitors to and supporters of the school.

(b) Control of school by parents - as through the membership of the governing bodies.

With teachers' associations two points in particular should be noted:

(a) They are becoming formal and legitimated pressure groups. They are involved in salary negotiations and membership of advisory bodies, sometimes by statutory right.

(b) They are part of the general professional and pressure group system which is now bringing weight to bear on local and national decision making.

The examples of governing bodies, parents' and teachers' relationships and teachers' associations point to serious confusions that are beginning to arise as attempts are made to open the school systems to client participation. Such confusions may be unavoidable, if only because one ought not to multiply the number of external bodies to which a school must relate. But the overlapping and confusions between participation, control, review and criticism (sometimes to be seen in OECD-sponsored papers) should at least be recognised even if they cannot be avoided.

CONCLUSIONS

It is now possible to offer the following general conclusions.

(a) Schools are not autonomous but can be free. Such freedom is best specified in terms of precisely what the schools are socially and legally sanctioned to do and what is expected of them (their activities or tasks).

(b) For the freedom and discretion of the schools to be stated adequately, the prescriptions around them must also be stated.

(c) The concept of the prime institution might usefully be developed. Briefly, we have been describing systems in which the educational processes are carried out by groups of professionals within a management structure. In theory the whole of the system is the institution which provides education. But within the total institution (including government department, local authority and school) there are prime institutions upon whose ability to offer adequate services to pupils, and to create and develop

new forms of education, the functioning of the whole service ought to depend. The few models that we have of educational creativity - as in English primary schools - have depended on the creation of such prime institutions. It is by describing their discretion and the prescriptive limits within which they work, that we might get some sense of how educational governance is able to reconcile creativity and accountability. This concept of the prime institution is needed even more seriously in other welfare state institutions such as social and welfare organisations. It might well be applied to the area team in a social services department, for example.

(d) The creativity of the schools has to be reconciled, in any complex society, with the demands of the whole society which may, at any one time, wish to emphasize aspects of social or economic growth that might be antithetical to educational professional assumptions. If this is so, the assumptions should again be made explicit as objectives governing the whole system. Indeed, the central theme of this paper - the reconciliation of freedom and autonomy - itself is a statement of values. It may well be that accountability, itself a democratic value but not often recognised as such, is too often more powerful than freedom.

(e) The place of development in public organisation systems also needs to be defined. Development is the assessment of needs of the clientèle with a view to re-articulating organisational objectives and activities. It should not be confused with planning, which is the establishment of systems by which processes can be better related to objectives. Work needs to be done on ways in which the developmental impulses of the schools - in Britain there are thirty thousand potential centres for experiment and development - can be brought together in a total developmental system in which inspectors, advisers and resource managers are able to take up the work of the schools for purposes of generalisation and replication.

(f) The place of parents, pressure groups, professional associations and so on in the educational system is uncertain and needs to be developed. But these roles are best not developed in terms of grandiose and vague statements about participation. Distinctions need to be sustained between participation and control, authority and power, management and the criticism and review of management. At present liberal intentions in Britain are confusing these categories.

(g) Follow up. A number of matters that call for follow up emerge from this review. Of these the more important are:

(i) There is need for a more systematic statement of the range of decision-making systems showing to whom the different levels of educational service are accountable.

(ii) In particular, accountability within the educational field proper could be studied, for example through the ways in which examination systems prescribe the content of curriculum.

(iii) The paragraphs in this paper concerned with development could be carried further into a discussion of accountability for creativity. Is this a contradiction in terms or is it possible to expect systems to shelter, foster and encourage innovation?

(iv) The way in which authority is exercised is affected by many variables. One of them is the incentive to be creative. Cash differentials, status, the freedom given to the prime institutions, might all be examined in this context.

(v) International comparisons of the range of roles surrounding the two types of the inspector and the adviser would yield useful perceptions on the discretion and accountability of the school.

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IV. ORGANISATION AND RELATIONSHIPS WITHIN THE SCHOOL

by

Tim McMullen, Centre for Educational Research and Innovation, and lately Warden of Countesthorpe College, Leicestershire

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This paper, despite its designation, is not a definitive statement. The problem it discusses has been little studied; parallel studies from industry and administration have some relevance but this is limited by the particular nature of the school and the processes it undertakes. The author has spent much of his career in the internal administration of schools working with a wide range of differing organisations and has also been concerned with attempts from outside the school to modify the behaviour of administration within. This paper then is written from the point of view of the practice of education. It will attempt to clarify the problem, to discover what questions to ask, and to suggest tentative hypotheses for further discussion and investigation.

A central concern will be the relationship between changes that are introduced from outside the school to those generated within it. We are not concerned either with an overall imposition from without or a spontaneous invention from within but with a complex interaction between external and internal forces. The school will be truly creative when it can both generate its own innovations and adapt those originating from outside; its internal organisation must be receptive to outside stimuli as well as protective against undue interference. The energy that can be released from real involvement in making decisions must be supplemented by the energy that can be induced by powerful innovative stimuli from without. Above all it is not a dichotomy that we are concerned with - participation against manipulation - but a compromise between them.

DEFINITION OF THE PROBLEM

The problem, for this paper, is to clarify the relationship of the internal organisation and relationships in the school to its capacity to adopt or reject, adapt and generate change. This

partial approach must be seen in the perspective of the whole; it is clear that the internal conditions in a school that enable it to change are closely related to the factors external to it - the administrative framework, the professional supporting structure(1), and the complex pressures from the social environment. Above all, the motivation, hopes, and reactions of teachers are much influenced by formal and informal external pressures. Whatever the immediate impact, changing the internal conditions of the school alone will prove insufficient.

The term 'participation' is currently used to cover two processes: participation in the taking of decisions in which the participant has real power; and participation in influencing decisions in which the participant is consulted. In this paper the first meaning - participation as power to take decisions will be used throughout; for the second process the term 'consultation' will be employed.

Nature of the factors involved

We are concerned primarily with the different types of change, the different methods by which they can be introduced, and the relationships of these to differing internal organisations and relationships. Other variables are involved which we cannot treat exhaustively in a paper of this length, but they should nevertheless be kept in mind. Firstly, the size of the school (which could vary between 200 and 4,000 students in the secondary sector) profoundly affects organisation, relationships and, most particularly communications - the possibility of staff interreaction decreases geometrically with the size of the staff! This paper relates more to the moderate or large school with perhaps 30-160 professional staff.

Secondly, the quality, homogeneity of qualifications, and age-distribution of professional staff, together with their promotion prospects, pay structure and their mobility between schools, will vary and will influence particularly the personal relationships within the school. Finally, the economic and social background of pupils will, through their hopes and expectations, affect the internal relationships of the school.

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(1) See the following chapter: "Professional Support to the School".

Types of innovation

What must be considered carefully are the different degrees of innovation as they affect the teacher: one type of organisation might encourage one category of change yet be hostile to a second. Three main classes can be identified. First, marginal changes which do not alter the teacher's role nor greatly change his practices - those innovations which add to his repertoire rather than alter it, e.g. the addition of an audio-visual technique. Secondly, an incremental change defined as that which, while not altering his role, changes the teacher's practice and results at least temporarily in increased work: a substantial alteration in subject content or the adoption to an oral approach in a foreign language would fall in this group. Finally, fundamental change which transforms both the teacher's role and his practice, e.g. the introduction of non-streaming together with individualised learning. In this paper, we are mostly concerned with the last two categories.

A second dimension necessary to consider is whether a change is binding on the whole professional staff of the school or a section of it - the maths department, for instance - or whether it is voluntary for the individual or a self-selected group.

Methods of effecting change

Why should a school or its staff change? Teachers surely are like the rest of humanity. They prefer certainty to uncertainty, security to insecurity. Once they have learnt to perform a task adequately they have a resistance - some would say a neurological resistance - to learning a new method. Unless the process is rewarding in some way, they do not relish either the extra work involved in re-learning, or the threat of an unknown situation; this is not to forget that small section to whom change is a challenge always to be accepted. Also, the nature of the profession, itself secure rather than adventurous, attracts a cautious personality; certainly most teachers are recruited from a basically conservative socio-economic class. Above all, their tradition has been that of

transmitting a culture not transcending it, a conservative role. Finally, their professional relationships, particularly with adolescents, are personally threatening: authority is vital, and they exercise it within known conditions: change these and the teachers' nightmare, the classroom riot, may occur. In addition, immured as teachers are in their classroom, their lack of visibility, except to their students, makes them particularly able to resist external pressure to change.

All this adds up to a basic tenet of this paper: that teachers in general will not change fundamentally of their own free will, even though there is a small proportion who will. To rely on the spread of innovation by this small percentage of change-motivated teachers is not a viable strategy for large-scale change. This leaves inducement or coercion as possible methods; it does not, however, imply that a fundamental change so introduced is not greatly facilitated by methods of persuasion, by harnessing the energies of the self-motivated teacher, and by creating appropriate social relationships within the school.

It is not assumed that inducement and coercion are only possible from outside the institution: the head or the hierarchy, and increasingly students, can bring the same pressures.

It is worth considering briefly the two outstanding methods. Firstly, inducement can be direct or indirect, subtle or obvious. It can take the form - as I believe it did in the spread of new methods of primary education in Oxfordshire - of the awareness that all promotions depend on the adoption of the new ideas, or as in Sweden in a direct bargain with the teachers' unions to decrease the ratio of students to staff. It can also include the inducement

that the innovation will result in greater student satisfaction and that this means greater teacher satisfaction; though I doubt if this will result in fundamental change, but might in incremental. Coercion is unpopular - illiberal - yet in fact is both widely used and is much more effective than most of us like to admit. An examination of some of the shot-gun marriages of grammar and modern schools in England would show that considerable teacher resistance before the event was followed, after a short period of discomfort, by the staff adapting to the new situation. Certainly coercion needs preparing well; certainly it will be more effective if combined with inducement and persuasion, but it remains probably the most effective agent of large-scale change in the armoury of educational administration. However, the reaction within the school to coercion can either be active and creative or passive and negative.

All this refers to a fundamental change in the role of a teacher. An incremental change, affecting as it does his practice rather than his role, is a different matter. Both as a human being and as a professional, a teacher wishes to perform his task effectively, one of his main satisfactions being the feed-back he gets from satisfied students. When confronted with a problem, by the awareness that he is not succeeding as well as he likes, he is stimulated to change his practice. What becomes important, therefore, is to develop internal conditions within a school in which problems are easily identified and discussed. Such conditions are related on the one hand to the degree of involvement of the teacher in his task (which is in turn linked to the degree to which he participates or is consulted in determining what that task should be) and on the other hand to good communications and open professional relationships.

Thus, while fundamental change will only arise from coercion and inducement from outside the school, incremental change will depend on the nature of the internal organisation and relationships in it. It will be influenced also by the persuasiveness of, and positive stimulation from, professional support bodies and from 'interventions' in the school itself(1). Hence, we have to allow for creative adaptation of fundamental change imposed from without and for the generation of incremental change within: a combination of a recognition of problems within the school, of open professional relationships, and of a sensitivity to stimuli from outside. It is in the light of this that we will examine possible internal organisations and relationships.

Finally, as in all organisations, innovation has to compete with the existing task which fully involves the efforts of the staff; this is particularly true in a school because of the nervous tension engendered by the teaching process. Normally both the time and energies of the teacher and the finance and physical resources of the school are fully engaged. The likely willingness to divert a part of all resources to a permanent or ad hoc sub-organisation aimed at effecting change is a critical factor in internal organisation, particularly as we are not here contemplating a revolution followed by renewed stagnation but a continuous evolution. It is not possible in the scope of this paper to examine the exact nature of such a sub-organisation and the resources it should command.

THE NATURE OF INTERNAL ORGANISATIONS

By internal organisations we mean the distribution of power to make decisions of varying kinds, to enforce or support such decisions, and the process of communication involved; the whole results in the definition of the role of individuals or groups within the school. Something is to be learnt by studying

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(1) See the following chapter: "Professional Support to the School".

parallel organisations in industry, particularly through the work of Burns and Stalker, and March and Simon. However, certain essential differences in the "work-task" between a school and the rest make analogy dangerous; the difficulty in defining objectives in education and thus of measuring outcomes makes a "management by objectives" approach especially problematic. The complex human interreaction between the teacher and student on the "shopfloor" has no parallel in industry - notably the essential privacy in which the teacher operates. A point less often noticed but of increasing importance is that the nature of the organisation must be thought of itself as a learning situation for the student: they will not learn "participatory" attitudes from an autocratic organisation.

Criteria for differentiation of internal organisations

One can isolate three main types of decision that have to be taken in a school: the salient feature of an organisation is how it achieves these. One is the everyday decision which forms part of the normal routine; such a decision is taken according to known rules - whether written or understood from tradition. Secondly, "exceptional" decisions will be needed for situations not covered by routine, frequent when concerned with students who are varied human beings; these, however, are not decisions resulting in precedents for a new routine. Finally, there are policy decisions which result in a new routine being established. In most organisations it is laid down who takes what level both of routine decisions and of the "exceptions" to them; much less clarity exists as to who takes policy decisions and by what process.

Closely linked to "who takes what decision" is who enforces and/or supports the decisions once taken. For instance, in a foreign language department the head of department may have the power to make routine decisions such as "at what level of marks students may enter for an external examination"; he may also be delegated the power to deal with exceptional cases e.g. "students whose level is clearly too low but who have been ill". However, the policy decision "to offer Spanish instead of French to less able students" may be reserved for higher authority; but, once it is taken, the head of department will have the role of enforcing and supporting the decision.

A second major factor is the nature of the communication system and the kinds of information that flow along it. For convenience the term "vertical" is used for movement up or down between head, hierarchy and assistant staff, and "lateral" for movement between assistant staff. A third factor is how clearly various levels of the staff perceive the aims and objectives of the whole institution. A fourth is where the staff perceives the seat of the authority that underpins the whole organisation. Of lesser importance, but still significant, is the way in which promotions are made or influenced within the organisation.

Possible classification of organisations and their relationship to variables of types and methods of change

One can identify many types of internal organisation on a line from the completely autocratic to the entirely participatory. However, by taking five points on this line one can perhaps make clear the relationship between organisation and change. It must be remembered in all that follows that these are generalisations and that they are not discrete types.

It is important here that the distinction made earlier between participation and consultation be borne in mind. More stress has been put on the participatory and collegiate forms than would be warranted by the comparative rarity of both. However, this has been the direction in which many systems have been moving; considerable pressure has been exercised both by students for an increase in participation and professional unions for an increase in collegiate control.

The term 'Principal' will be used for the head of a school and 'Head of department' for any staff in charge either of a section of academic work or of social organisation.

(i) Autocratic Organisation

In this, only routine decisions are delegated and even these are closely supervised by the Principal; exceptions to routine and policy are reserved to him, and decisions

are taken without consultation. Communications are mainly vertical, consisting of a flow of orders downwards and routine information upwards; thus knowledge is concentrated in the Principal's mind. Aims and objectives, with the exception of those that are clearly demonstrated by the Principal's actions, are little understood by staff. They perceive the authority for the system stemming in part from tradition, in part from the charisma of the Principal himself.

On the surface this may appear an unlikely system to promote fundamental change - particularly as the qualities that go to being made Principal in an autocratic system are strength of personality combined with reasonable conformity rather than ability to innovate. However, where such a system is still acceptable to students and staff, it may well be particularly open to inducement and coercion from without acting on the Principal; the habit of acceptance of his decision may well then carry the innovation through. For the same reason it is comparatively easy for the Principal to reallocate human and financial resources. It is at least a tenable hypothesis that fundamental or incremental change originating outside the school may be easily effected, although the acceptance may be passive rather than creative.

Incremental change, influenced from without but generated within, is improbable, as staff are not encouraged either to identify problems or to solve them themselves; influence from outside tends to be mainly on the Principal and interventions are not welcome.

(ii) Bureaucratic Organisation

Here the routine and 'exceptional' decision-making powers have been clearly delegated to a hierarchy working in a strongly departmentalized system, this delegation being designated by rules or by tradition. Though residual power lies with the Principal he cannot easily disrupt the

system. No machinery exists for taking policy decisions which, owing to the competing interests of the departments, are hard to achieve. Because of departmental rivalry, it will be particularly difficult to bring about any necessary reallocation of resources. Communication is vertical but information tends to be retained at the departmental head level rather than passed up to the Principal or down to the assistant staff. The overall aims of the institution have been fragmented into departmental objectives. The authority for the system is seen as traditional and inherent in the organisation itself. Promotion takes conformist lines and is much influenced by the heads of departments.

Though such a system can be effective, it is clearly inimical to change other than perhaps of a marginal type. Because of the rigidity of the structure and the importance of the "rules", it is unlikely to generate it from within, and a powerful combination of coercion and inducement would be required to influence it from the outside. Even if this were successful, the organisation would tend to fall back afterwards into a new bureaucracy hostile to further growth.

(iii) Consultative Organisation

While real power resides with the Principal and secondarily to a hierarchy designated by him, "exceptional" and policy decisions are taken by a process of consultation which may involve committees of senior staff, perhaps with representation from junior staff and students, or which may attempt to consult the whole body of participants. Particularly, major policy decisions are taken only after maximum consultation. This is not a process of vote-taking: the final decision lies with the hierarchy and Principal, but nevertheless decisions are strongly influenced by participants. With this goes considerable delegation to 'lower' echelons of staff to take 'exceptional' decisions

and initiate minor policy changes at the classroom level. Departments are wider and often interdisciplinary in the area they cover; ad hoc groupings are possible. Communication is two-way vertically, information passing both ways; lateral communication is encouraged by the process of consultation.

Understanding of the aims and objectives of the school can become widely diffused among senior, but possibly less widely among junior, staff. Consultation will also take place with heads of departmental areas over promotion of staff. Though authority for the system is seen to derive finally from the Principal, it is felt to come also from either the total staff or more often from the senior staff. The looseness of the departmental organisation will also allow reallocation of resources; it would be easy to set up a permanent allocation to a 'change group' within the staff.

This organisation has the advantage of being open to external pressures which need only to be exercised on the Principal and hierarchy; once they have been convinced of the inevitability and necessity of a fundamental change the organisation allows for sufficient involvement of the staff to make sensible adaptation possible. It is also open to the external administration, by controlling appointments of senior staff, to ensure that those promoted are open to outside influence. However, the ease of developing open relationships and the receptivity to outside stimuli, combined with the tendency of such a system to facilitate the identification of problems, to encourage their discussion, and to disseminate the necessary information about them throughout the staff, also makes incremental change, generated within the school, a real possibility.

(iv) The 'Collegiate' Organisation

In this, major control of policy and of executive action is by the professional staff or by some representative body of them - in the latter case usually weighted towards seniority.

Decisions are taken by voting, perhaps with special mechanisms for review if the result is close. Executive action is normally taken by the Principal and an appointed hierarchy; in some cases the Principal has the formal power to veto which is rarely, if ever, used, because to do so would destroy the 'collegiate' nature of the organisation. He usually retains certain 'hidden' powers, such as the right to recommend promotions. Communication tends to be good, particularly laterally because of the process of joint decision-making. In the same way knowledge of the aims and objectives of the school is widespread. Increasingly pressure is being brought for appointments, including senior staff, to be made or at least strongly influenced by the Collegiate body.

This organisation must surely be resistant to <u>fundamental</u> change, decisions being taken by a body of staff who are themselves individually opposed to it. Unlike in the Consultative organisation, outside pressure has to be brought on the whole staff, not a small hierarchy. Both coercion and inducement will be difficult. It is possible also that, to the extent that the Collegiate body control appointments, highly innovatively-minded staff will be rejected.

The situation could, however, be quite different in relation to incremental change; a Collegiate system with its good professional relationships - and its probable stress on professional responsibilities - might well prove one in which problems are discovered, discussed and tackled. It is also likely to be open to professional stimuli from outside support bodies and to be reasonably welcoming to professional interventions. It is, therefore, possible that a Collegiate organisation may turn out to be hostile to fundamental, while remaining open to incremental, change.

(v) <u>The 'Participatory' Organisation</u>

This resembles the Collegiate organisation except in one fundamental aspect: students share real power in the making of policy decisions. A distinction needs to be

drawn between a true participatory system when any student of sufficient age has a vote and a representative system when a number of students are elected to represent the rest. In the latter case, unless the number of such representatives substantially equals that of the staff, there is a danger that the representatives will identify with the staff rather than students. It is assumed here that it is older students - at least over fifteen years - who will be involved. Experience in day schools has shown that under this age children tend largely to reflect the opinions of their parents and are unable to see any specific issue in the total context of the school; however, training for future full participation can start much younger at the 'class-room' level. Therefore a true participation system can only operate in schools with a substantial proportion of students between 15-18. Communication can be better than in other systems, again encouraged by the joint discussion of problems; similarly aims and objectives of the school can be easily disseminated. The 'authority' for the system is seen to derive from all those participating in it. Appointments will be made, or at least influenced, by the total participating body.

Such a system - as also the Collegiate one - may be very effective, enlisting as it does the strength and motivation of all: involvement can be considerable. But in average conditions, will it welcome fundamental change? Here it is necessary to differentiate between change in academic content and method on the one hand and social organisation and relationships on the other. It is also necessary to consider briefly the adolescent himself who rebels against adult authority while at the same time enormously lacks confidence in himself and is anxious for his uncertain future. Students will bring constant pressure to change the authority and social relationships within the school and in this will represent a real source of 'coercion and inducement' for the staff. But in academic matters they will be cautious and unwilling to risk change - particularly those of them who stand to benefit from academic success.

It seems likely that fundamental social change in schools can result from participation; but in those establishments in which the majority of the students need examination results the conservativeness of the staff may be reinforced by that of the students. It is important not to judge this system by schools such as the Norwegian experimental gymnasia where students are self-selected and staff very innovative, or Countesthorpe College where the staff was selected for its openness to fundamental change - though it is an interesting confirmation that, in the latter, students who were motivated towards examination success proved a conservative element in relation to academic change. This leaves uncertain those establishments where a substantial body of students are over 15 and are not concerned with academic success, particularly in working class areas. Here students are increasingly disenchanted with academic content as well as social relationships: for such schools, participation could be a real road to change.

In its attitude to incremental change, the Participatory organisation will resemble the Collegiate and be favourable. It may perhaps be more so, as the identification of problems becomes easier when students themselves are involved and stimulus to find a solution becomes sharper.

As parents are not direct participants in the school, and as they are more normally considered as a possible part of a governing body external to school, they have not been included as part of a participatory internal organisation. However, should they be so considered, it is probable that in general they will act as a conservative rather than an innovative element; this is particularly true in relation to academic matters. It is perhaps worth remembering that in schools serving a cross-section of social classes it is the middle class parents who would most likely be involved; it is this group that tends to have been satisfied with its own education and wishes to perpetuate it. In

disadvantaged areas it is more probable that parents, having no fixed ideas of what education should be, might be more open to change. It is thus possible that in a school in a disadvantaged area the participation of both parents and students might bring real pressure towards fundamental change.

Looking over the whole range of possible internal organisations it appears that, even though efficient, the Autocratic and Bureaucratic systems are likely generally to stifle the creativity of the school. The real interest lies between the Consultative and the two types of real participation, the Collegiate and the Participatory. The former has advantages on account of its openness to essential pressures for fundamental change from outside combined with its probable capacity to generate incremental change within. However it is unable to involve either the junior members of staff or the students wholeheartedly in the educational task; for this to happen real participation is necessary. In a Collegiate system this is given to the professional staff who may well then generate incremental change within. However, at the same time, it is very likely that the corporate body of professional staff will prove resistant and perhaps impenetrable to pressures for fundamental change from without. Finally a Participatory system, involving students - and possibly parents - in normal areas may present a double face: resistant to fundamental change in academic matters but open to it in social relationships; it too should be likely to generate incremental change. A possible exception to the latter might be in the case of a school in a disadvantaged area; here it might be open to fundamental change in all matters. Thus one might prefer a Consultative system for some reasons, and a Participatory one for others.

Table I attempts to summarise the reaction of the five types of organisation to change. After looking at the nature of personnel relationships in the school, this paper will put forward a tentative scheme aimed at embracing both the Consultative and the Particpatory systems.

THE NATURE OF RELATIONSHIPS WITHIN THE SCHOOL

It is not proposed to discuss in this paper relationships at great length because they are largely determined by the nature of the formal organisation and by the pressures from the professional groups outside, such as teaching unions. This is not to diminish their importance. Although they are not a sufficient condition for fundamental change, they are in many cases - particularly for incremental and for self-generated change - a necessary condition. Mechanisms that can help change a staff to an 'open' set of relationships will be essential(1).

Certainly, within a school, the informal relationships between hierarchy and assistant staff, amongst staff and between staff and students, are of vital importance: to the attitude of individuals towards change, to the opportunities that arise for self-selected groups to generate change, and to the communication of both the ideas behind, and the experience of, change throughout the staff.

The main interrelationships that affect the creativity of the school are the dominant attitude towards change on the staff, the amount of professional communication that goes on between them, and the formality or otherwise of the relationship between Principal, hierarchy, assistant staff and students. We intend to examine briefly the two extremes - a "closed" system and an "open" one; remembering that all kinds of compromises between them exist.

1. The "Closed" system

In this the dominant attitude of the staff to change is hostile. Such an attitude would seem to be particularly associated with Autocratic and Bureaucratic organisation; this will be particularly strong in relation to fundamental change, less strong towards incremental change; strongly towards binding change, less towards voluntary change. However, in the Collegiate system, and, in relation to academic work, probably in the Participatory system as well, hostility would be limited to fundamental change.

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(1) See R.A. Schmuck's paper: "Interventions for Strengthening the School's Creativity".

The second main element in the "closed"system is limited interpersonal contact, particularly professional contact. Staff-room conversation tends to be non-professional; staffroom relationships to be restricted between subject departments and between age-groups. The Principal tends to be isolated from the staffroom both physically, and by custom and tradition. Such limitations stem naturally from Autocratic and Bureaucratic organisation, but certainly need not be a part of Collegiate or Participatory systems which by their decision-making process encourage greater interpersonal contact on professional matters.

A final element in a "closed" system is a "hierarchic" formal relationship between Principal, senior staff, junior staff and students, in which formality and respect are expected in a one-way direction. This particularly inhibits the upward flow of informal information, which, by giving warning of the malfunctioning of the existing system, creates conditions in which change would be considered. Again this is typical of Autocratic and Bureaucratic systems. The Collegiate system might possibly develop this between staff and students; the Participatory not at all.

It is interesting to consider what will happen in a 'closed' system when subjected to pressures to change. It will resist coercion, but if forced may rapidly settle back into a new 'closed' system which while accepting the coerced change will remain hostile to any further change.

2. The 'Open' system

The dominant staff attitude is here positive to incremental change and to 'voluntary' change; for reasons discussed in the section on formal organisation, staff will not in normal conditions be receptive to fundamental change. This attitude can develop in Consultative, Collegiate and Participatory systems.

Staff have the opportunity, time and desire to meet and discuss professional matters informally. They may also have the opportunity to enter the working situation of other departments. This clearly both encourages groups to discuss change, and also spreads information about what is happening throughout the school. Interpersonal open relationships can be developed in the Consultative system, in the Collegiate - but not necessarily involving students - and in the Participatory system.

Finally relationships between Principal, senior staff, junior staff and pupils are informal and easy, which again increases the flow of information up from below. Such a system should be open to persuasion, to inducement, and to student influence; particularly it should encourage self-generated voluntary change and make easier adaptation of change from without.

GENERAL CONCLUSION

It has been seen that the creativity of a school is dependent on the internal organisation being Participatory either in the sense of influencing decisions (the Consultative organisation) or of taking decisions (the Collegiate or Participatory). Certain advantages in permeability to outside pressures lie with the Consultative, in involvement of all concerned, with the Collegiate and the Participatory. It might be worth considering whether the two could be combined.

A possible organisation is set out in Figure 1. The school is concerned as having discretion to make decisions represented by the thick surrounding line. The amount of this is dependent on the laws of the land and the regulations of the administration on the one hand and the pressures from the total environment on the other; to a limited extent the 'position' of the line is not fixed but negotiable. Within, the major 'framework' policy decisions after full consultation are taken by the Principal and hierarchy, one of whom is designated particularly to promote innovation and is given time and resources to do so. The staff - and, if desired, students - are then divided into a series of small working groups, some of which will be stable over time and others

Table I

SCHEMATIC PRESENTATION OF THE RECEPTIVITY OF FIVE TYPES OF SCHOOL ORGANISATION TO CHANGE

	Generated Within School						Adopt/Adapted from Outside the School					
	Binding on Staff			Voluntary			Binding on Staff			Voluntary		
	Fundamental change	Incremental change	Marginal change	Fundamental change	Incremental change	Marginal change	Fundamental change	Incremental change	Marginal change	Fundamental change	Incremental change	Marginal change
Autocratic (closed)	XX	XX	X	XX	XX	X	✓	✓✓	✓✓	XX	XX	
Bureaucratic (closed)	XX	XX	X	XX	X	✓	XX	XX	✓	XX	X	✓
Consultative (open)	X	✓✓	✓✓	✓	✓✓	✓✓	✓	✓✓	✓✓	✓	✓✓	✓✓
Collegiate (open-closed)	XX	✓	✓	X	✓✓	✓✓	XX	✓	✓	XX	✓✓	✓✓
Participatory (open)	✓* XX	✓✓* ✓	✓ ✓	✓* X	✓* ✓	✓✓ ✓✓	XX	✓	✓	X	✓	✓

✓ is positive to change

✓✓ is very positive to change

X is negative to change

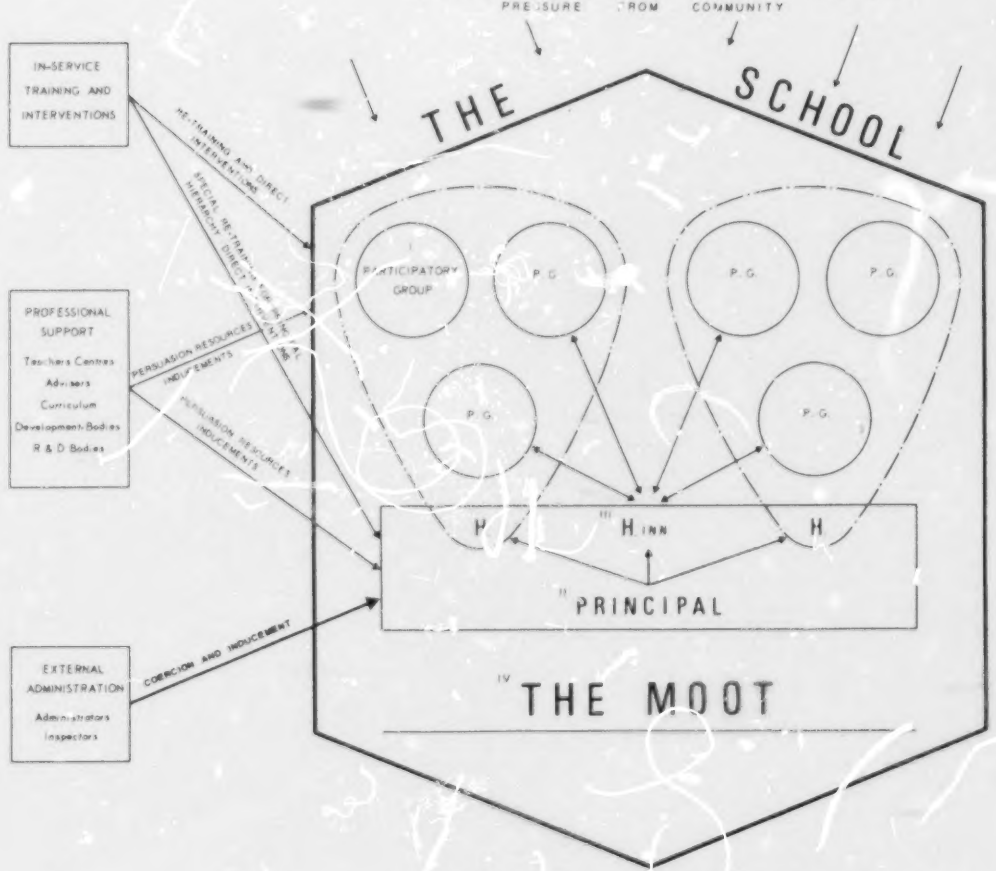
XX is very negative to change

(Closed/open) refers to most likely social relationships to accompany the type of organisation

*✓ refers to change in social matters or in academic only when students are not examination-success minded. X's refer to academic matters when dominant student groups are orientated to examination success.

Figure 1

A POSSIBLE ORGANISATION FOR IMPROVED CREATIVITY IN THE SCHOOL



DEFINITIONS AND POWERS

I. PARTICIPATORY GROUPS
Consists of 3-8 teachers + students who work together.
Have power to make policy decisions within a policy framework laid down by the Principal / Hierarchy group.
Power to take executive action.

II. PRINCIPAL HIERARCHY
Consist of principal and those with direct delegated powers - heads of department, or sections, houses or deputies.
Have power to make the overall framework policy - subject only to MOOT veto.
Responsible for executive action subject to appeal to MOOT.

III. H - INN
Member of hierarchy (could be principal) responsible for innovation.
Has resources but no power.

IV. THE MOOT
Consists of all staff, with or without students or student representation.
Has powers to veto, on a 2/3 majority, any policy decision but not to initiate policy. Acts as Appeal Court against executive action.

V. (Broken Line)
Area of close co-operation and communication between participatory groups and including member of hierarchy.

which would form for a specific task. These groups would have complete discretion, within the framework of the major policy decisions, to make the direct policy decisions concerning their work. For example, the major policy decision might be 'to introduce co-operative group work among teachers'. Individual participatory groups could then decide how to implement this: one group perhaps simply sharing the making of materials while a second was introducing a thorough team-teaching organisation.

Finally, the Moot - the meeting of all participants or a substantial representation of them - would have the role of a check on the power of the Principal/hierarchy in that it could veto policy decisions by a two-thirds majority. It is improbable that, if consultation is really taking place, this veto would ever be used; however, its existence would guarantee that the major policy makers do continue to consult. The Moot could have two further functions: it could act as a Court of Appeal against executive decisions, and it could act as a discussion forum.

There are several potential advantages that might be expected from this type of organisation. Firstly the involvement and relationships that lead to creative incremental change are retained partly by the participation of all in the direct decisions regarding their particular work, partly by the consultation of everyone for the general policy decisions. Secondly the Principal/hierarchy are retained as the main channel for stimuli from outside. An enlightened appointment policy by the Administration can ensure that there are staff who are innovation-minded and, as discussed earlier, they would be more open to the necessary pressures from the Administration when fundamental change was needed. Finally the presence among the hierarchy of someone who has the time and resources to encourage creative change would ensure that participatory groups with ideas were encouraged while those lacking them were stimulated.

Perhaps such a system - or a modification of it - could resolve the paradox that began to emerge during the writing of this paper: that participation, desirable in itself and leading to incremental change, could nevertheless be hostile to fundamental change.

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V. PROFESSIONAL SUPPORT TO THE SCHOOL

by

Roland Vandenberghe, Senior Lecturer,
Centre for Educational Research, Katholieke
Universiteit, Leuven (Belgium).

Professional support may contribute to various operational activities of a school; but, without wishing to minimise other possibilities, I propose to confine my remarks here mainly to teaching problems. In this sphere, professional support is something explicitly designed to contribute to the creation of a number of conditions enabling the teacher to perform his (professional) task more effectively in his capacity as organiser of the learning process. All forms of professional aid (whether contributed by the author of an article or by a team from an educational centre) must aim at this ultimate goal, although it seems to be an aspect that is somewhat neglected at the present time.

Such an approach implies essentially that the teacher is a professional expert in the organisation of a teaching process the object of which is to accomplish a learning process. As a corollary we may inquire whether the teacher himself has this conception of his role: does he see himself as an expert in this field? There is enough evidence to show, I believe, that one aspect at least of the teacher's role is acknowledged to be the organisation of the teaching-learning process(1), although he is seen to be concerned also with administrative(2) and socio-psychological(3) problems in the course of his work. These last two I do not wish to minimise, even though they will not be considered further in this paper.

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(1) For example: E. Hoyle, The Role of the Teacher, London, New York: Routledge and Kegan Paul, Humanities Press, 1969.

(2) See chapter III:"Administrative Relationships between the School and outside Institutions".

(3) See chapter IV:"Organisation and Relationships within the School".

An interesting development in the countries of Western Europe is that nowadays the object of management tends to be the school as a whole rather than the individual teacher (see E. Hoyle's paper, paragraph 37, **Technical** report No. 1). Similarly, it is to the school and not the individual teacher that professional support is now principally directed.

Professional support may be conceived as the development of a relationship between the school and a number of bodies outside it. The object of this relationship is to effect a desired change within the school and/or among the teachers concerned. In other words, professional support is not a random, haphazard affair but a systematic activity aiming at a specific change (e.g. the creativity of the school).

In describing and examining professional support we can adopt two different approaches. We can present a systematic description of the real situation - for example, that most teachers regard inspection as an act of supervision rather than assistance. On the other hand, we can consider the possibilities of various forms of professional support in the context of a desired change. In what follows I shall try to combine the two approaches; the second will lead to a series of recommendations.

Each of these approaches can be expressed as a premise that provides a useful theme for keeping the two threads of the enquiry distinct as we develop it.

The first theme is that the effect of a specific form of aid upon the school or the teacher(s) depends on the character of the recipient [i.e. the school or the teacher(s)]. For example, it has been found that the influence of specialised literature is greater (at all events it is different) on a teacher who is receptive to innovation than on a teacher who is not. The same applies to the innovativeness of a school. Hence, we must always look at the relative influence of the various forms of professional support.

The second theme is that the various forms of professional support can be described and their value assessed. In other words, if we disregard the relative influence of the various forms of

professional support for the moment, we can identify more specifically the content of the school/professional support relationship.

Finally, the description of the reality of professional support and the practical evaluation will enable us to work out a provisional conceptual diagram in which we will attempt to classify the various forms of professional support. This diagram will provide a place for the various current forms of professional support and reveal where any major defects lie. It should also enable potential research **priorities** to be fixed.

THE RELATIVE INFLUENCE OF PROFESSIONAL SUPPORT

Starting with two forms of professional support - educational research and specialised literature - we propose to discuss a number of examples that show the complexity of the problem. The choice of these two forms of influence is not fortuitous. Specialised literature on education and teaching(1) is a form of professional support that has made considerable progress at the present time. The other form (educational research) is also assigned a good deal of importance and much is expected of it in some quarters, but it involves a number of "linking" problems.

The influence of educational research and its results

To what extent can research exercise an influence on the school nowadays? To what degree does it stimulate change? How far does it offer arguments for decision-making in individual schools? To what extent is it a source of creativity (i.e. change)? These questions call for concise answers.

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(1) We observe in some countries a tendency towards co-operation between a number of periodicals. This seems to indicate that promulgation of an innovation through the printed word is accepted as an important medium of communication.

At the moment it is generally agreed that little or nothing is being done to put the results of research into practice in the schools. They cannot therefore be considered as an effective constituent of professional support. Various reasons have been put forward to explain this.

The existing situation is conceptualised differently by the researcher and by the practitioner (administrator, inspector or teacher). The researcher endeavours to reduce all educational problems to a number of variables which he tries to keep under control by the process of operationalisation and instrumentalisation. His first concern is to make a specifically consistent description of them. The practitioner, on the other hand, expects an immediately usable solution to a complex problem whose component variables he cannot (or will not) discern. A comment often heard in this connection is that educational research has no precise orientation and strays too far from the real everyday problems of teaching. Furthermore, the practitioner attaches a good deal of importance to intuition and improvisation in the practical organisation and management of the teaching-learning situation. The researcher, on the contrary, is anxious to build up gradually a structure of knowledge and relationships culminating in a theory on the teaching-learning process. It is also asserted that the researcher uses a technical language incomprehensible to the practitioner who complains, with some justification that he makes no effort to 'translate' his results.

The problem can be approached from yet another angle. In a very interesting article Guba describes the following phenomenon: "Innovations have persisted in education not because of the supporting evidence of evaluation but despite it. A recent dramatic example is afforded by the Higher Horizons programme in New York City. Test data failed to affirm what supervisors, teachers and clients insisted was true - that the programme was making a difference so great that it simply could not be abandoned"(1). There is therefore

(1) E.G. Guba, The Failure of Educational Evaluation. Educ. Technol., 1969, 29-38.

apparently a gap between the research results and the experience of the practitioners concerned. In other words: there is a contradiction between the conclusions of a group less directly involved in the innovation and the motives inciting practitioners to continue with it.

This example shows not only that the practitioners are uninterested in the results of research, but that the researchers do not attach any importance to findings based on observation and experience. This rejection of either research findings or practical experience indicates a difference of value structures as between researchers and teachers.

We may provisionally assume that the participation of educational practitioners in research may, after a certain time and after the acquisition of positive experience, lead those actually co-operating to rethink educational problems in the same conceptual framework and with reference to the same value structure as the researchers. Whether such co-operation will exercise a complementary influence on the researchers is an open question. It is relevant here to mention one important result(1) from Margaret Johnson's enquiry into "Teachers' Attitudes to Educational Research". She noted that teachers who had once been involved in research had a more favourable attitude to the value and potentialities of educational research than those who had not had this opportunity. Her conclusion is: "It appears therefore that the involvement of teachers in research does produce in them a favourable attitude towards research. **Participation** in research should therefore be encouraged, provided that the research is conducted in such a way that it does genuinely involve the teacher". This initial assumption about the participation of practitioners in research is also confirmed in the experiment conducted by Hoban and Rege(2). (See Mr. P. Vanbergen's paper, paragraph 11, b, Technical Report No. 1.)

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(1) Margaret E.B. Johnson, Teachers' Attitudes to Educational Research. Educ. Research., 1966, 67(9), 74-79.

(2) C.F. Hoban & A. Rege, Value Structure of Researchers and Non-researchers. AV Commun. Rev., 1969(17), 410-427. See also: R. Schmuck, Social Psychological Factors in Knowledge Utilisation. In T.L. Eidell & Joanne M. Kitchel (Eds.), Knowledge Production and Utilisation in Educational Administration. Columbus, Ohio/University of Oregon, 1968, 143-173.

The need for the maximum utilisation of research results has not only led to a new approach [Havelock(1) speaks of a "new science"] but has also produced a number of proposals - for example to broaden the "conceptual framework" of research and to develop a "structural framework".

Broadening the conceptual framework

E.R. Hilgard's proposal is well-known: in it he distinguishes and describes seven types of research, ranging from "basic science research in learning" to "experimental or demonstration schools" where the product developed can be demonstrated(2), with the object of showing that it is possible to reduce systematically the distance between, say, basic research and decisions concerning innovations. He gives the following examples:

Types of research	Relation to educational practice	Illustrative research
A. Basic science research in learning		
Type 1	Not directly relevant to school practices	Animal maze learning; eyelid conditioning; influences of drugs on memory
B. Technological research and development bearing upon instruction		
Type 4	Relevant because taught by special teacher in simulated classroom	Computer-assisted instruction; language laboratory
C. Policy research bearing upon innovations in curriculum and practices		
Type 7	Experimental or demonstration schools, showing what can succeed	Headstart programme: non-graded schools

(1) In this connection, see: R.G. Havelock, A Comparative Study of the Literature on the Dissemination and Utilisation of Scientific Knowledge, Michigan University, Ann Arbor, 1969.

(2) For example: E.R. Hilgard, The Translation of Educational Research and Development into Action. Educ. Researcher, 1972(1), 7, 18-21.

Hilgard's conceptual diagram certainly offers valuable suggestions but the problem of transitions and continual adjustments between the various types of research remains. Moreover, it is striking to see how the flow of thought is usually one-way, namely from research to development (although movement in the opposite direction is not impossible).

Developing a structural framework

Within this term comes the establishment of institutions intermediary between research and practice. We are thinking more especially of educational centres, research and development centres and learning laboratories. Such institutions would, thanks to their development work, be assigned the specific task of bridging the gap between research and the desired changes in the practical field. Nevertheless, there is a number of attendant problems for, here again, the flow is all too often from research to practice and less often from practice to research. The trend observed in the United States of America is symptomatic of this: perhaps because of their structural incorporation into a university, the research and development centres are increasingly devoted to research and less to development. A positive point in the evolution of these intermediate institutions, however, is that from the regional standpoint they are closer to the school. As a result, not only does the psychological distance lessen but it becomes possible to carry out certain precisely formulated tasks in a specific school. In our opinion, it is the transition from a general desire for aid to more direct call for specific professional support that will provide the important stimulus for educational research and at the same time lessen the "linking" problem.

In this context the proposition formulated by Gideonse seems very promising(1). He starts by drawing a clear distinction between three levels of activity. In education as a whole, each of these levels has its own role and its own pretensions. There is the level of research which sets out to add new knowledge

(1) H. D. Gideonse, An Output-Oriented Model of Research and Development and its Relationship to Educational Improvements J. exp. Educ., 1968(37), 157-163.

(formation of theory); the level of development where the results of research may provide the starting point for the development of teaching equipment, teaching methods and even new structures; finally, there is the level of teaching practice itself. Gideonse emphasises that the starting point of a change may be located at any one of the three levels. But a desire for change (practice) or a proposal for change (development) or a research result clearly revealing the need for change always have repercussions on the other two levels. By way of illustration, let us take the case of the principal of a middle school who, after contact with the language teachers, wishes to introduce a more direct method for learning foreign languages. This decision leads to a comparison of various existing methods which does not yield any satisfactory results, so a body outside the school is consulted on developing a method in co-operation with the teachers concerned. The first trials give rise to so much difficulty that it is decided to consult language specialists, at the same time consolidating the knowledge acquired during the trials. This produces an improved method. At some point problems arise which lead to research not totally divorced from the original subject requested by the practitioner. This is developed along independent lines by the research group.

Finally, I feel I must emphasise the necessity of a proper relationship between the three levels. The management bodies (educational centres) must be capable, in their specific projects inside specific schools, of translating problems into terms of research (which should then preferably be carried out within the school) and must also be capable of transmitting the information and data required for the research. In practice this may lead to a number of difficulties, particularly in connection with the function of the "change-agents", for example inspectors and staff members of a pedagogical centre. There is little sense in continuing to look for general models of professional support involving research, for the measure of its importance is the degree to which it helps to solve the individual problems of specific schools. In this it is "action research" rather than fundamental

research - a fact that will not have escaped the specialists. Nonetheless it must be an explicit part of the management strategy. When tackling a specific problem in a particular school by research combined with immediate action, the change-agent (as we have already seen) develops a situation leading to a change in teachers' attitudes to the value of research.

PROFESSIONAL SUPPORT: ANALYSIS OF POSSIBLE CONTENT

The influence of specialised literature

In considering the value of specialised articles or literature and their potential influence on teaching practice, and hence the creativity of the school, it is perhaps well to begin with a few generalisations based on a fairly considerable body of research(1). Generally speaking, the average teacher reads very little, very selectively (i.e. he reads what he already knows) and most often to find an immediate solution to problems of the moment.

The increase in the number of educational periodicals shows that there is a vast potential audience. The printed word is, of course, an effective way of transmitting information (knowledge) and arousing initial interest, but it is less effective when the adoption of some innovation calls for a change in attitude, as it most often does in the educational field. It is generally acknowledged that teachers who are receptive to innovation (early adopters) read much more, are familiar with several periodicals and thus have wider information than the average teacher. Hence the influence of this medium would appear to depend on the nature of the recipient. There are records in the agricultural sector, for example, of people often trying out innovations on the strength of written information only. Further, in one of my own investigations we found that schools taking part in an innovation increase the number of their subscriptions to specialised educational periodicals, that these periodicals were more frequently consulted by teachers and that this, therefore, gave rise to discussion of articles in

(1) Essential references are contained in E.M. Rogers & F.L. Shoemaker, Communications of Innovations. A Cross-Cultural Approach. Collier-Macmillan, New York and London, 1971.

them. It would seem, therefore, that published information has a part to play whenever teachers are faced with new tasks and are looking for some basic justification for what they intend to do about them. This is most often the case with educational changes at macro level.

The reasons for the limited influence of written information are well known. By definition written communication is a one-way process. There is therefore no immediate feedback and it is impossible to obtain additional information by asking questions. Information can be obtained through what is known as interpersonal channels and this is also more conducive to a change of attitude.

From the foregoing it follows that we can use published information effectively in an "elaborated" change - indeed we can conceive a sequence for reaching a large audience through all the mass media: periodicals, radio and television. In the first phase there should ideally be contact between the various periodicals so that information regarding the changes (particularly structural changes) can be transmitted intensively over a strictly limited period. In a second phase, information would be transmitted by radio or television to promote discussion in local groups. This method has yielded excellent results in some of the developing countries, while in Europe there have been encouraging signs of collaboration among regional groups of teachers at basic educational level. In a third phase, the individual teacher (and perhaps the school) should be reached through the inspectorate.

Lectures and symposia

Lectures are frequently used for the promotion of educational innovation, but too often are they used as a one-way system of communication with the assumption that the audience comes already favourably disposed towards the subject. In fact, in these days of lively educational controversy, the information offered may well be susceptible to various interpretations, hence the lecturer should not be surprised if initially he gets a mixed reception. The important thing is to ensure that there is active audience

participation by, for example, the prior formulation of specific questions to be asked and discussed and the ready availability of summarised information in printed form.

Television

Television has great potentialities as a medium for educational innovation, and it is used in many countries (see P. Vanbergen in Technical Report No. 1, paragraph 12a). So far, however, little has been done to evaluate its actual effectiveness although it is already clear that this increases when the medium is used in conjunction with discussion groups.

Television also has a valuable part to play in in-service training of restricted and specific scope and of limited duration - the greater the number of courses, the less their influence. In this context it is very desirable that when a series is being programmed arrangements should also be made for its evaluation. Without evaluation, courses have been known to continue with progressively decreasing effectiveness.

In individual schools closed-circuit television can be very useful. It is a means of ensuring continuous direct feedback on the progress of any innovation by revealing systematically whether the teachers' behaviour conforms to expectations, whether the students' reactions are consistent with the objectives pursued, whether they are using individual subject programmes properly and so on. So, the justified use of closed-circuit television is a continuous form of professional support for the teacher.

Demonstrations

Although significant changes are taking place in the form of publications, lectures and television, they nevertheless still provide a largely one-way medium of communication that can take no account of the motivations or local circumstances of individual teachers. A "Rational man-strategy" therefore calls for additional forms ensuring two-way communication (S.D. Sieber: "Co-operator strategy"). Of these, demonstrations are particularly useful. In the first place, they make it possible to observe the innovation

in an elaborated form. This gives a teacher who is about to accept the innovation a stronger motivation and enables a number of adjustments suitable for his school to be planned beforehand. Secondly, a demonstration enables a proposed innovation to be tried out cautiously by a teacher in his own classroom. Thirdly, the fact of having to give a demonstration is very often a considerable stimulus to the teacher to go forward with an innovation - it is a form of "reinforcement".

In view of the palpable uses this particular medium has, one naturally has to consider if there should in fact be demonstration schools. So far as concerns those operating in exceptional circumstances with maximum aid, additional subsidies and ample teaching equipment the answer is probably "No." Whenever a demonstration takes place in circumstances far removed from the ordinary conditions prevailing in a classroom, teachers are inclined to adopt a negative rather than a positive attitude to what is being presented. The same applies to television demonstration. When it comes to macro changes however, schools in which the changes proceed slowly (and very often only partially) but on organised lines may provide viable demonstration centres. Here it is possible to observe the real potentialities and detect the difficulties that arise when some new form of education is being put into practice. This is especially valuable for teachers not yet participating in a change.

In these pilot schools one prerequisite is essential: the teachers must be able to rely on adequate guidance, aid and support, and this must be systematically organised in advance.

The Inspectorate

Most countries provide for some form of inspection in their educational system. The size of the inspectorate and its terms of reference will determine its potency as a "change agent". Inspectors may have very great influence - and in many countries this is real - through their personal contacts with teachers, for they are in a position to give personal advice adapted to each case. For any one country, however, it is impossible to define the precise or potential

influence of the inspectorate until one knows the answer to a number of questions. How does the inspector conceive his role? How does the teacher view the inspector? Does he consider him as a counsellor or as a supervisor? It is, of course, preferable not to combine these two aspects - counselling and supervision - in one and the same function for the person receiving the counsel or supervision sees only the supervisory aspect. A number of countries adopt this view. (P. Vanbergen, **paras.12b and 12c,** Technical Report No. 1, and A. Amaro de Costa, paragraphs 19-20, Technical Report No. 1).

Educational centres

During the last two decades a number of countries have recognised the need for an intermediate organisation designed to stimulate and manage educational change and they have set up special centres for this purpose. The actual form they take and the methods of educational support they use differ considerably from one country to another. In general terms, however, they can all be described as management bodies, intermediate between educational research and practice and closely in liaison with the inspectorate. A number of them have yet to define their strategy.

The problems with which these centres are dealing may be very complex, e.g. objectives, methods, personnel, means of evaluation, legal forms of organisation, but it is possible, by examining a single instance, to illustrate their general field of concern and function. Let us take the case of designing a management plan for the reform of basic or secondary education(1).

GENERAL OR SPECIFIC MANAGEMENT

In designing a general management plan we are faced at the start with a very important question: should the reform be total or partial? The answer to this has serious implications for management. In fact the resolution of this choice between "total reform" or "partial reform" can be made a good deal easier by introducing a distinction between "general management" and management

(1) The method recommended here has been applied in the management of a new form of professional teaching.

of one aspect only - "specific management".

In General Management the role of the educational counsellor(s) (or the management body) is to collaborate with the teachers in translating the principles proposed into a form that is justified from the teaching standpoint. This entails the following activities. First, the teachers are helped to translate the general objectives into more direct language and an effort is made to define in advance what changes should be brought about in the students' performance. This is a very difficult task. At the start the objectives may only be stated in very vague terms and it is not at all unusual for them to be changed in the course of these studies. Meanwhile, the teachers consider that it is not important to devote discussions to "what one wants to achieve"; their questions mostly concern practical aspects of the method - "what has to be done?". Little by little, however, signs appear that show the members of the management body that the teachers are beginning to see the need for a type of teaching designed to achieve specific objectives - that is for an "oriented" type of teaching.

Teachers are helped in all this by means of experiments where they themselves conduct and check the tests. The results are arranged and classified so that teachers can draw immediate conclusions with regard to their own performance.

Specific Management is in complete contrast to the foregoing. General management covers all aspects of the experiment chosen, whereas specific management **chooses one aspect only,** for example, the teaching implications of an intended structural change. Here, the need for assistance to teachers is obvious.

The function of general management is partly determined by the progress of the innovation itself. Specific management entails organising the whole enterprise in advance as far as possible, accompanying activities and methods of performance all included.

With general management there is no need for any "method" in the strict sense of the word. Specific management must be based on a scientifically established method, that is, one that is verifiable and usable in other circumstances. Both forms call for

co-operation from the teachers concerned. In specific management this is precisely defined, i.e. the teachers have a very specific task related to the aspect chosen. Indeed, the success or failure of the experiment largely depends on the degree of co-operation by the teachers.

Having made this comparison, we must at once say that it is not desirable in our view to apply both forms of management at the beginning of an experimental programme. During the first school year only general management should be used for determining the local situation, the attitudes of the different teachers and the overall atmosphere of a particular school. Furthermore, this type of management gives teachers maximum opportunities for optimum co-operation with the management team, it being necessary to foster a positive attitude on their part towards the research. This is in preparation for the stricter research that will be done during the specific management period. This does not at all mean, however, that the two forms of management cannot be exercised simultaneously so long as it is realised that specific management concerns only one aspect of the plan, all the others being covered by general management.

The indirect results of management

The distinction here made between general management and specific management all too easily suggests that specific management is in fact an impoverishment because it gears educational activities unilaterally to a single aspect of a reform. Moreover, there is a danger that teachers will be inclined to concentrate too much on this one aspect with the result that allowance will have to be made for distorted results. With specific management, these risks must be taken into account but in fact its merits largely dispel the unilateral danger. For example, intensive systematic work in a restricted field creates a favourable attitude to research among teachers that leads to increasing importance being attached to previous research, the results of which are invoked to support important decisions. In the same way it is found that opinions change into "assumptions". The

conviction that a specific method is likely to be the only effective one tends to disappear. This exemplary method is also an excellent opportunity for learning motivated co-operation between the teachers themselves and between the teachers and the members of the management body.

Another reason why specific management is not an impoverishment is that it gives rise to an important phenomenon to which we can apply the term "transfer of management". In this, teachers in fields not being currently covered by specific management begin to work in the same way as those in the specific management sector and do so jointly and without any prompting from the management bodies. This is a form of "self innovation" in the sense that the teachers themselves intensively and systematically spread the objectives of a specific highly localised project right through the school. This in itself would appear to justify maintaining the distinction between general and specific management.

Two further points remain to be made. The first is that the above operations are not intended to give a complete picture of the activities of the educational centres; the range of their potential activities is much wider. The second is that it is absolutely essential for the working methods of the management bodies to be evaluated. The final criterion for this, I suggest, should be the answer to the following question: on completion of the experimental project and after systematic observation, conversations with teachers, and questionnaires, is there any sign of a trend from outside management towards a form of self-innovation?

A PROFESSIONAL SUPPORT DIAGRAM

At the outset of this presentation we referred to the development of a provisional conceptual diagram showing the place occupied by the various forms of professional support. In preparing this we have started with the assumption that professional support aimed at increasing the creativity (i.e. the propensity for innovation) of a given school has originated from outside the school. But we would add to this the idea that

after a certain time, the school itself should be capable of providing its own professional support through the process just described as "transfer of management".

The diagram embraces four main types of support, that is four possible means for maximizing the creativity of the school or modifying the performance of individual teachers in the direction desired. It allows for two dimensions in educational management - "aid" and "recipience".

The "aid" dimension:

- aid is most frequently offered by bodies outside the school.
- but aid may also be provided inside the school by local innovation nuclei which ensure continuous change within it. This cannot be fully assessed without knowledge of the internal dynamics of the school. (See E. Hoyle, paragraph 38(iii) and (iv), Technical Report No. 1). As already pointed out, however, the "self-innovation" suggested here emerges only after some time and initially as a result of professional aid received from outside. A local innovation nucleus cannot solve all problems; there will always be some that have to be solved from outside.

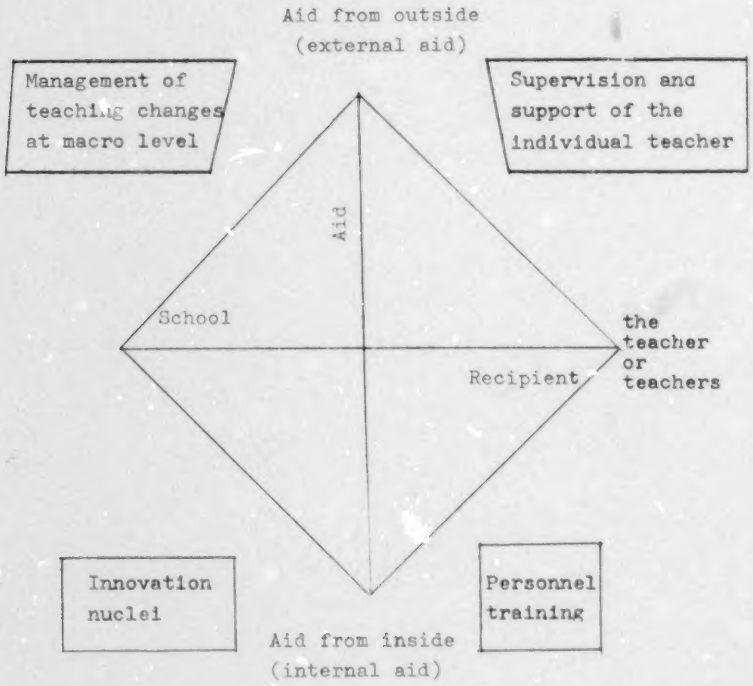
The "recipience" dimension:

- this refers to professional support directed at the individual teacher as an organiser of the teaching-learning process and a member of a group of teachers within a specific school;
- also included is aid directed to the school as an organisational unit.

The combination of these two dimensions brings us to the conceptual diagram in which we can situate the four main forms of management (Figure 1). For example, aid to individual teachers

(or to several individual teachers) provided by a management body outside the school leads to the form labelled "supervision and support of the individual teacher" - that is, by inspectorate, some other change agent or the administration.

Figure 1: Conceptual diagram of the various forms of professional support



The possible forms of professional support play a different role in the four main sectors. This is illustrated by the following examples:

Personal training

Specialised literature clearly plays a vital role here. A well stocked school library is, therefore, a valuable resource.

Personal training is also enriched by formal and informal contacts with other teachers at lectures or public discussions. The influence of the headmaster and contacts with the inspectorate cannot be underestimated in this first main form of management.

Supervision and support of the individual teacher

In this,second, main form of management, the inspectorate or any other kind of external change agent may play a very important part. Of course, an educational centre may exercise a certain influence on the individual teacher but its influence should be primarily directed at the school as a whole.

Management of educational change at macro level

As already suggested, this is where the principal efforts of the educational centres should be concentrated. Organised management, spread over a certain period of time and deliberately incorporating periods of evaluation, can only be exercised by a team of experts.

Innovation nuclei

In enhancing the creativity of a specific school it should be possible to foster conditions likely to ensure that the school will eventually be able itself to carry out innovation and change. This should be the ultimate result of any form of professional support. This is in accord with the definition of creativity of the school given in the first chapter of this book: "its ability to accept, reject, adapt and/or generate new practices".

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VI. INTERVENTIONS FOR STRENGTHENING THE SCHOOL'S CREATIVITY

by

Richard A. Schmuck, Professor of Educational Psychology,
Center for Advanced Study of Educational Administration,
University of Oregon, U.S.A.

Throughout modern history teachers have valued their own continued education for professional development. In addition to these internalised values for professional growth, recent social changes have placed new external pressures on teachers to improve their practices. Research and development has led to new practices in industry; not only in the form of new products and markets, but also new procedures of management. The public sector also depends heavily on basic and applied research by amassing systematic surveys of public opinions and customs, by analysing the consequences of governmental action, and by investing economically in many studies and experimental programmes. No matter what the area of belief, value, behaviour, or tradition, the knowledge gatherers and researchers of the present often challenge accustomed ways of thinking and behaving with new information. The result is that the modern citizen can take less for granted and must maintain fewer unquestioned and unquestionable assumptions and patterns of behaviour. Thus, the rapid technological and knowledge advances of our modern world have brought new demands on teachers to make the traditional value of continued education a new and challenging reality.

Schools, as organisations, have not been exempt from the effects of this knowledge explosion. Indeed, these changing times also call for less unquestioned tradition and more creative ways of running the school. Among the primary, and most immediate, social pressures on schools which prod them on to change both at the individual level as well as the organisational level are:

(a) The growing recognition and understanding that individuals learn in different ways and at different rates. I refer to this as the social demand for increased individualisation in schools.

(b) The growing view that some required school subjects have little relevance and meaning to the world that students will face after graduation. I think of this as the challenge of relevance in education; it is linked at this time to interests in improved career and vocational education.

(c) The increasing demand that teachers and schools be evaluated, and thus financed, on their performance. Increased interest in cost-benefit accounting, programmed-planning-budgeting-systems, and writing behavioural objectives highlight this pressure. I refer to this as the social demand for increased accountability in schooling.

(d) The growing recognition that television, movies, audio tapes and written programmes of instruction can be effective substitutes for the teacher has introduced the social demand for more uses of educational technology.

(e) The increasing interest by experts to change and reorganise the traditional disciplines of knowledge and to make major renovations to combine several different fields can be viewed as a social demand for more interdisciplinary curricula and departures from traditional curricula.

(f) And finally, the criticisms from many citizens that schools are too cold and impersonal and that students are not treated with respect and empathy represents a widespread interest in humanising relationships within the school.

Two interventions to cope with change

Aside from the preservice preparation of future teachers within colleges of education, two intervention strategies stand out today as holding the most potential power for helping teachers to cope with these six social demands. The first is inservice education for teachers and administrators and the second is

training in organisation development for entire faculties. Inservice education is a strategy for facilitating change in the individual, while organisation development is a strategy aimed at dealing with changes within groups of personnel within the school. The former deals with modifications in the information, attitudes, and behaviours of individual educators; the latter aims at modifying the structure, norms and role-procedures of the faculty that works together. (See P. Vanbergen, paragraphs 12 and 13, Technical Report No. 1.)

I have had considerable experience with both of these strategies of change. Both can be effective for helping teachers to work collaboratively and skilfully in improving their teaching. However, because I have recently been more involved in doing research on organisation development and because I believe that less is known about it than inservice education, I will present more detailed information about it after first commenting briefly on inservice education.

INSERVICE EDUCATION

Inservice education has been applied primarily to help secondary teachers become more knowledgeable about their subject matter. Recently it also has been used to help teachers individualise instruction, to learn how to write behavioural objectives, to use the current educational technology, to develop their own curricula, and to use new group procedures in their classrooms. Unfortunately, most of these interventions are not documented well, nor have they been carefully evaluated.

The handful of inservice programmes that have been systematically documented and evaluated indicate that the training should involve much more than the presentation of knowledge through lectures and reading. Successful inservice programmes provide opportunities for participants to experience cognitive, attitudinal and behavioural change. This means that, along with presentations of information, the effective inservice course affords structured opportunities for teachers to communicate with

each other about their attitudes and feelings as to the new information and its implications for changes in their role. The effective inservice course also affords opportunities for systematically planning how the new information might be implemented in the classroom and for trying out new behaviours within a "safe climate" such as can be the case in role-playing and micro-teaching.

The instructors of inservice education programmes might be professors of education, the Principal or Headmaster of a school, or curriculum specialists in a regional or state office. Whoever the instructor may be, he will be most successful in bringing about teachers' growth in the cognitive, attitudinal, and behavioural realms if he can implement the following principles. The successful instructor:

(a) encourages the teachers to take an active part in the course, both verbally and physically.

(b) encourages and facilitates each teacher's discovery of the personal relevance of the course of study.

(c) emphasizes that individual differences among the teachers are to be expected and are desirable.

(d) accepts each teacher's natural tendency to make mistakes.

(e) encourages teachers to be open about themselves rather than to conceal their weaknesses and strengths.

(f) promotes frank expressions of feelings by freely giving praise and criticism when appropriate.

(g) models openness by talking about his own concerns and insecurities.

(h) promotes a climate for attitudinal change by encouraging respect and acceptance for every teacher.

ORGANISATION DEVELOPMENT

However effective an instructor of an inservice course may be in facilitating a teacher's growth in knowledge, attitudes, and new behaviours, many of these new insights and learnings may be difficult to implement within the traditional school organisation. My own research and experience have indicated that many educational reforms have collapsed or have been absorbed without effect mainly because of the limited attention given to the organisational context in which the reforms have been attempted. (See G. Noel, paragraphs 36-40, Technical Report No. 1).

Any major innovation in curriculum or instructional technique implies a change in the "culture" of the school. The relationship between teachers and administrators, for example, is apt to change. Often the change affects not only the Headmaster and his faculty, but also the relationship between them and the nonprofessional staff and students. Consequently, authority relationships, communication networks, status groupings, and even friendship cliques are forced to change. In this process the innovation itself often fails or is restructured to conform to the "old ways" of doing things. (See E. Hoyle, paragraphs 27-30, Technical Report No. 1).

The social demands for individualisation, career education, accountability, educational technology, interdisciplinary curricula and humanising relationships call for new organisational procedures of co-ordinated and collaborative problem-solving on the part of administrators and their staffs. Changes on the part of the individual teacher will not be enough to implement new plans and new procedures for the school. They call for new attitudes among administrators as well as new norms between the administrators and the teachers who work together. In other words, adequate adaptability of a school to these six social demands requires both individual and organisation changes.

Although inservice education courses have sought to deal with teachers' attitudes about these six social issues, little emphasis has been placed on how the teacher's new knowledge, attitudes and skills can be implemented within the social context of the school. Moreover, while inservice education has sometimes successfully brought about changes in the individual teacher, it has not tended to help teachers develop the sorts of communication and problem-solving norms and skills that would increase their adaptability as an organisational unit. This is where organisation development comes in.

Organisation development (abbreviated as OD) is a planned and sustained effort to apply behavioural science to system improvement, using reflexive, self-analytic methods. Note that the emphasis of OD is on the system, rather than the individual as the target for change. In OD training, group participants are never strangers, as in typical group dynamics workshop; the participants in OD are the interdependent members of the same system or interlocked systems. System may mean either an entire school organisation or a subsystem such as an academic department or teams of teachers.

I mean by reflexive, self-analytic methods that involve staff members themselves in the assessment, diagnosis, and transformation of their own school. Rather than simply accepting diagnosis and prescriptions from an outside "technocratic" expert, organisation members themselves, with the aid of OD consultants, examine current difficulties and their causes and participate actively in the reformulation of goals, the development of new group process skills, the redesign of structures and procedures for achieving the goals, the alteration of the working climate of the school, and the assessment of results.

To implement OD on a continuous basis, an organisational subsystem (such as a regional cadre of OD consultants) is created and charged with the specific responsibility for planning,

managing, and evaluating the continuous process of organisational creativity. Thus, it should be borne in mind that an organisation, such as a school, is never transformed permanently, and institutionalised, built-in OD functions must be continuously involved in facing the dilemmas and vicissitudes of organisational renewal. The essential concept here is that some fraction of a school's resources is devoted to continuous organisational maintenance, rebuilding, and expansion. Such a concept is familiar to administrators in relation to plant and equipment maintenance, but is much less widely known and accepted in the maintenance and growth of the school's human organisation.

School organisations as systems. School organisations are complex social systems that gain their stability through role expectations and interpersonal norms. Individuals within a faculty behave predictably largely because of their adherence to shared expectations for what is appropriate in the school. Norms are compelling stabilizers of behaviour because individuals in the school monitor one another's behaviours. It is the strength of this sharedness that makes a school culture so resistent to modification but which, at the same time, offers a tool for planned change. If a school's creativity is to be viable and continuous, changes in interpersonal expectations must be shared so that each staff member knows that his colleagues have changed their expectations in the same way that he has changed his own.

Educational organisations are more than simply the sum total of their individual members and curriculum materials. The total staff has characteristics quite different from those of its individual members. These I refer to as the school's systemic characteristics. From the systemic point of view, effective management of schools is evidenced when greater production occurs than would be expected from a simple summing up of individual resources. As an open system, a school's efficiency is measured by how completely resources are used for educating its students. Ultimately a school's efficiency

is determined by how effectively it can adopt new ideas and generate internal change to cope with changing times.

These system concepts help to establish a theoretical rationale for OD interventions. First, interventions will be more effective if they deal with subsystems and not just with individuals who lack functional interdependence. Further, since the school takes its shape from the ways the functional subsystems connect their efforts to one another, OD should focus, too, on relationships within and between subsystems. Second, interventions should confront the school with discrepancies between goal-striving and actual goal-achievement. Third, interventions should be aimed at making every subsystem receptive of information from every other subsystem, including the external environment. Finally, interventions should help the school to identify under-used resources and to facilitate the creation of new or ad hoc systems to mobilise available resources quickly for isolated and non-regular problems. OD interventions quite often lead to formations of problem-solving groups that did not exist in the formal structure of the school before the intervention. If school organisations are to be truly creative, they must be able to form new subsystems, change them or dispose of them as needed. (See E. Hoyle, paragraph 19, Technical Report No. 1).

Research on interventions. Several years ago, Matt Miles and I carefully reviewed the data-based research on OD in schools (Schmuck and Miles, 1971)(1). More recently, Phil Runkel, several assistants and I reviewed the available research and development on inservice education and OD in schools (Schmuck, Runkel, Saturen, Martell, and Derr, 1972). Although there is not enough space in this paper to present details on our many discoveries, I do want to summarise some highlights of our findings.

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(1) References are given at the end of this paper.

(a) Inservice education of school administrators or of teachers - by itself - is not a powerful enough intervention to bring about sustaining organisational change in schools. (See Miles, 1965, Schmuck, 1968, Lansky, Runkel, Croft and MacGregor, 1969, and Thomas, 1970.)

(b) Human relations training which focuses primarily on the individual growth of participants is not an effective strategy for bringing about sustaining organisational change in schools. (See Shaevitz and Barr, 1970, and Schmuck and Miles, 1971.)

(c) An OD intervention can be an effective means for bringing about sustaining organisational changes in schools, especially when the building administrator is committed to the change efforts. (See Schmuck and Runkel, 1970; Fosmire, Keutzer, and Diller, 1971; Flynn, 1971; and Schmuck, 1972.)

(d) Finally, an OD intervention also can be an effective means for humanising the interpersonal relationships between teachers and students. (See Schmuck, 1968; and Bigelow, 1971.)

Goals and instrumental sequences of OD. The following goals constitute some guidelines for a typical OD intervention:

(a) to increase understanding of how personnel in different school jobs affect one another.

(b) to develop clear communication networks up and down and laterally.

(c) to increase understanding of the various educational goals in different functional parts of the school.

(d) to uncover organisational conflicts for constructive problem-solving.

(e) to develop new ways of solving problems through creative uses of new roles in groups.

(f) to develop new ways of assessing progress toward educational goals in the school.

(g) to involve more people at all levels in decision-making.

(h) to develop procedures for searching out innovative practices both within and outside the school.

The achievement of objectives such as these naturally depends upon an effective strategy for altering organisational processes in schools. The following seven rubrics of actions constitute the primary ingredients of a prototypic OD strategy for bringing into operation more creative school organisations.

(1) Clarifying communication. Clarity of communication is essential to all the concepts discussed previously. All school participants must learn to clarify the messages they receive from one another. An aspect of openness is using skill in communication to develop internal networks of higher fidelity and external channels that map the environment more accurately. Ambiguity and conflict about norms and roles can be alleviated by developing more precision in the transmission and reception of information. (See J. Egeland, paragraph 9, Technical Report No. 1.)

(2) Establishing goals. Educational goals are usually ambiguous and diffuse. Organisational members can learn to clarify and share their objectives and to increase their sense of "owning" the goals and integrating their efforts.

(3) Uncovering conflict and interdependence. Clarifying communication processes and objectives will lead to increased awareness of areas of conflict and interdependence. Confronting conflicts and exploring interdependencies will help to establish norms and roles that will aid the school in accomplishing its educational tasks. (See H.J. Jacobs, paragraph 11, Technical Report No. 1.)

(4) Improving group procedures. Most organisational activity occurs in meetings of face-to-face groups. Meetings are rarely satisfying or productive for all faculty members and they are often frustrating. Procedures for creating and using new skills for facilitating task productivity and group maintenance can help any meeting to be more satisfactory.

(5) Solving problems. Adaptability implies active engagement in continuous problem-solving cycles for identifying, analysing, and acting on environmental contingencies. OD can help schools to harness their resources to extract creative solutions that yield a higher rate of success than solutions that merely extrapolate past practice.

(6) Making decisions. OD almost always disperses influence much more widely throughout the system than is usual in present-day school organisations. Power need not be decreased in one job to be increased in another, although sometimes it is helpful to reduce authority if it is not based on knowledge and competence. Schools must learn alternative styles of making decisions to assure commitment from those who must carry out the decisions. (See E. Hoyle, paragraph 23, Technical Report No. 1.)

(7) Assessing change. Change for its own sake does not necessarily lead to organisational creativity which is also adaptive. Schools must develop criteria for measuring and evaluating progress toward meeting both long-range and short-range goals.

The technology of OD. A typical sequence of OD involves the following seven steps:

(i) Initial contact with the administrator and the board of education to gain general approval for the intervention.

(ii) Commitment from the entire faculty about the intervention. During discussions with the faculty agreements are made about goals, time, and energy; the consultant makes clear that he is consultant to the entire faculty, not just to one segment of it, such as the administration.

(iii) Data-gathering concerning existent organisational processes of the school.

(iv) Feedback of data to the target school.

(v) Establishment of the specific goals of the OD intervention for this faculty.

(vi) The training programme is implemented.

(vii) Data are gathered to ascertain effects of the training while it is proceeding. Decisions about termination are guided by these data and made jointly between the consultants and the participants.

The training programme, listed as (vi) above, is made up of certain skills, exercises, and procedures which together form the building blocks of OD technology. The term skill signifies a way that certain interactions with others can be executed in a group. Sometimes the skill is one of communication, such as paraphrasing what another has said so that the other can verify whether he has been understood. Sometimes, it is one of the group-convenor, such as guiding a group through a survey of opinion. Sometimes the skill involves writing interview schedules to obtain diagnostic information about a school.

The skills practised during OD interventions are put to work only in reciprocal relations between persons; no individual can make use of these skills in isolation. Each skill is actually one person's part of a reciprocal role-relation.

Paraphrasing can only be done in conversation with at least one other person and is not a complete act until the other has verified the accuracy of the paraphrase. The skill of a pair or group, consequently, is often surprisingly independent of the presumed skill of the individuals composing it. The convener can be skilful in conducting a survey only if the members know their parts of the role-relation; an interview schedule can be prepared effectively only if the interviewers using the schedule act with the same goals and values as the writer and only if the respondents join the communicative act in the way the writer and the interviewer anticipate.

A distinction in OD is drawn between exercises and procedures. An exercise is a game that participants are asked to play in order to teach them something very important about group dynamics. Participants are able to understand the important principle about the group processes because they have just experienced the principle through their own behaviours.

A procedure, on the other hand, refers to an interpersonal form for communication in a group that helps the group to complete a task. A procedure can be used for a variety of tasks or purposes. One example of a procedure would be voting and another would be the "theatre-in-the-round" procedure for sharing ideas and making observations.

REGIONAL TEAMS OF OD CONSULTANTS

It is rare for schools to employ consultants for the purpose of improving the communication patterns as well as the group processes and organisational procedures that affect everyone. Even when they do, expert OD consultants from universities and private consulting firms cannot be around often enough to be sufficient. Educational consultants competent to carry out OD interventions are urgently needed in many regions to help make the schools more creative organisations. A team of regionally-based OD consultants who are themselves teachers and administrators is important so that the training can be available on a continuous basis. (See E. Hoyle, paragraph 39, Technical Report No. 1.)

My colleagues and I in the Centre for the Advanced Study of Educational Administration have helped a cluster of schools in two geographical areas build teams of their own OD consultants. We have learned from our research on these two clusters that there are at least five features that give these teams their special effectiveness.

The first essential feature is that the OD consultants are organised into formal subsystems, identifiable as a group, have a supporting budget, and are viewed by others in the geographical area as a group carrying out legitimate and important actions. The second feature is that the OD consultants are themselves practising teachers or administrators and therefore work only part-time on OD interventions. Unlike the outside expert, the part-time consultant is not likely to carry out his duties as an intervener at the expense of teachers or principals, because he is himself a teacher or principal. Third, the OD consultants should try to remain self-renewing as a group by maintaining contact with outside agencies and experts from whom they can learn more about OD and upon whom they can call for special help. The fourth feature is that OD consultants do not administer, direct, supervise, or install. They wait for the school or department to demonstrate readiness to make use of aid before they offer their wares. Fifth and finally, OD consultants do not offer advice on content problems. Instead, they offer a greater range of group and organisational processes than school people ordinarily use in working on their own important problems.

Activities of OD consultants. OD consultants train others in communication skills, innovative group processes, and problem-solving procedures. Seven sorts of activities recur in their work; these are:

(i) Toward the goal of trying to develop clear communication up, down and laterally they teach communication skills such as paraphrasing, describing feelings and behaviours, and impression checking.

(ii) Consultants seek to increase the understanding that people have of the ways different parts of the school affect one another by using data gathering techniques, such as questionnaires, interviews, and direct observation, and by arranging sessions at which the information is systematically fed back.

(iii) OD consultants help spread skills of writing educational objectives and specifying operational definitions as an aid to understanding the educational goals held by personnel in various positions.

(iv) Consultants try to improve the skill of groups in systematic problem-solving.

(v) Consultants help faculties to develop new ways of assessing progress toward educational goals.

(vi) Consultants offer process consultation to help bring into use the relevant knowledge, skill and energy of all personnel involved in a task.

(vii) Consultants are alert for innovative practices that can serve the goals of a school. One frequent technique, in preparation for later problem-solving there, is to bring together people from several schools suffering from frustration with others that have creative ideas.

Special abilities of OD consultants. For OD consultants to be effective they must exhibit several abilities. In general, these abilities are associated with the key stages of an OD intervention. We have found that these abilities can be learned in about twenty-five days of training by the highly motivated educator.

(a) OD consultants must be adept at making entry and at building agreements about the goals of OD with the members of a school. Unclear expectations often plague the first phases of OD. Some participants think of OD as involving highly charged sensitivity training; others think of lectures and discussions on administrative science and group dynamics; and still others think of OD as relaxed fun and games. Probably most participants do not hold any clear idea about OD. The consultant needs to know how to carry out a demonstration workshop to help a target group understand OD theory and experience OD technology. Any demonstration should increase the reliability of the participant's decision on whether to continue into OD training in earnest. For examples of OD demonstration see Schmuck, Runkel, Saturen, Martell, and Derr (1972).

(b) Even among those staffs for whom entry and forming agreements about goals go smoothly, there will be some schools where the OD may go poorly. The OD consultant should understand how to diagnose the current state of his target organisation before constructing a training design. We have discovered, for example, that staffs which do not support collaboration and which do not value individual diversity among staff members will have some difficulty during the OD training.

(c) The OD consultant must also have special abilities in designing training events. A training design can be divided into macroaspects and microaspects. Macroaspects include the overall structure and outline, the sequence of parts, and the general forms through which the activities flow.

Microaspects refer to the specific activities played out during any limited period such as a day or a week of training. Included among microaspects of a training design are the skills, exercises and procedures mentioned previously. The effective OD consultant understands that the task of designing is difficult; it requires clear understanding of objectives, accurate diagnostic data, knowledge about the probable effect of different training procedures, and a delicate balance of insight into one's own motives on the one hand and empathy for participants on the other.

(d) Finally, implementing the training itself requires a great deal of skill on the part of the OD consultant. He should be a facilitator, not a dominator. At the same time, he should be forceful and definite, not hesitant and apologetic. He should try to be brief and concise as he attempts to move the group along. Perhaps the most difficult skill of the OD consultant is to keep his own feelings, especially his anxieties and defences under control. The consultant should try to use his own feelings of defensiveness as signals that the training is not going well and try to modify his behaviour and the structure of the meeting to make the training more effective.

INSERVICE EDUCATION IN RELATION TO OD

Since many schools do not have the resources necessary to enter into an OD project, I believe it is important to consider the sorts of inservice programmes that might be tried to encourage movement in the direction of OD goals and toward more creativity of the school. I suggest the following ten stages as important aspects of such an inservice training design.

(i) First, a group dynamics training experience should come early to help the participating educators to become more reflective about the effects of their own role behaviours in the school. The major goal would be to help educators to think about their own practices and to increase their readiness to accept new practices. A secondary goal would be to impress upon the educators that their own behaviours, and not thoughts and values, affect the feelings and reactions of those who work with them.

(ii) Next, knowledge of the behavioural sciences on such topics as clarifying communication, establishing goals, working with conflicts, holding effective meetings, solving problems, and making decisions would be presented. Discussions would be held on how such information relates to the educator's goals and role behaviours. Use of the knowledge, or at least some part of it, would be established as an important objective for each administrator. The group dynamics training, previously set in motion, would support the cognitive explorations of this phase.

(iii) Diagnostic skills related to communication, goals, conflicts, meetings, problems and decisions would be presented and discussed and the educator would become acquainted with how to measure the effects of his role behaviours related to each of these. Whenever appropriate, educators would be encouraged to give feedback to one another on these same behaviours. As the educator becomes more aware of his own characteristics, he may make fewer errors in perceiving how others are thinking and feeling.

(iv) Specific ways in which the knowledge about communication, goals, conflict, meetings, problems, and decisions might be used in practice would be "brainstormed" and refined. Each educator would be asked to plan various ways of behaviour for implementing this new knowledge. Each might also imagine and discuss the difficulties that he anticipates in using these new practices effectively.

(v) These new practices would then be tried out through role-playing and immediate reactions would be given by the other educators in the inservice group. At the same time, several different observation schemes might be introduced and some educators would be asked to serve as observers and to give feedback to the role-players.

(vi) Skills in giving, receiving, and using feedback would be discussed and the role-playing vignettes might be repeated again in attempts to use the feedback.

(vii) The educators would be asked next to make commitments to try out some of these practices in the "real" school setting. Discussions about supportive forces and restraining factors would be encouraged to explore the pros and cons of following through with the plan. Attempts would be made to reduce the restraining forces wherever possible either through revisions of the practice or by helping the educator to gain more confidence by simulating the practice still once more. One effective means for gaining commitment is to have the educator record on a cassette-tape the thoughts he has about the new practices he intends to try.

(viii) At a later session, after the educator has had an opportunity to get started on the new practice, the tape recording would be played back as a reminder of the details of the practice. If the original commitment was unrealistic, changes can be made at this point in the techniques used to introduce the practice.

(ix) The educator next collects some data about the effects of his practice. He might use questions under certain circumstances, but most often collecting verbal or non-verbal feedback from others will be sufficient.

(x) Finally, during the time when the practices are being tried out, group discussions with fellow educators would be held, perhaps once a week or once every two weeks, to support each educator's efforts and to revise plans further for using knowledge about communication, goals, conflicts, meetings, problems, and decisions. Attention would be given to how the practices should be modified to respond effectively to particular school situations.

For additional detail about how some of the skills associated with OD can be taught in inservice training programmes see Schmuck (1968); Fox, Luszki, and Schmuck (1966); Schmuck, Chesler, and Lippitt (1966); Fox, Schmuck Jung, Van Egmond, and Ritvo (1973); and Schmuck (1972).

INTEGRATING INSERVICE EDUCATION AND OD

Even though I have used up much more space to describe OD in schools than I have for describing inservice education, I have not meant to depreciate the latter. Indeed, OD gains strength as it is coupled with special inservice education programmes. So, for example, the teachers of a school are more

likely to respond favourably to an OD intervention after they have experienced an inservice course on communication skills, and an OD intervention with a faculty will have greater impact if the administrators and department heads are simultaneously receiving inservice training in leadership skills. Indeed, innovations involving individualisation, career education, accountability, educational technology, new curricula, and humanising relationships between teachers and students all depend on both the individual professionals developing new skills and on changes in organisational arrangements and processes.

Organisational change in schools will not persist if some individual changes do not also occur; and changes in the ways individual professionals think and work will soon dissipate or regress without supportive organisational changes. Increasing the school's creativity depends on interventions that include both training in organisation development and inservice education courses.

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APPENDIX

LIST OF PARTICIPANTS

AUSTRIA

E. Hönigsperger,
Ministerialkommisär,
Ministry of Education,
Vienna

L. Leitner,
General Director,
Ministry of Education,
Vienna.

BELGIUM

H. Corijn,
Ministry of National Education and Dutch Culture,
Brussels.

G. Dethier,
Ministry of National Education and French Culture,
Brussels.

J. Dispa,
Ministry of National Education and Dutch Culture,
Brussels.

P. Vanbergen,
Director General,
Ministry of National Education and French Culture,
Brussels.

CANADA

K. Francoeur-Hendriks,
Directeur Général,
Direction Générale de l'Enseignement Elémentaire
et Secondaire,
Ministère de l'Education,
Quebec.

M. Fullan,
Assistant Professor,
The Ontario Institute for Studies in Education,
Toronto.

W.G. Mitchell,
Education Officer,
Curriculum Development Branch,
Ministry of Education,
Toronto.

DENMARK

P.J. Johannesson,
Research Board for Primary and Lower Secondary Education,
Copenhagen.

FINLAND

P. Holopainen,
Institute of Pedagogics,
University of Helsinki,
Helsinki.

FRANCE

J. Auba,
Inspecteur de l'Instruction Publique,
Chargé de Mission à la Recherche Pédagogique,
Ministère de l'Education Nationale,
Paris.

G. Noel,
Inspecteur d'Académie,
Chargé de Recherches à l'Institut National de Recherches et de Documentation Pédagogiques,
Paris.

GERMANY

O. Eschenfelder,
Oberstudienrat,
Kultusministerium Schleswig-Holstein,
Kiel.

M. Mück,
Oberstudienrat,
Kultusministerium Baden-Württemberg,
Stuttgart.

H.G. Rommel,
Ministerialrat,
Bundesministerium für Bildung und Wissenschaft,
Bonn.

H. Schoene,
Ministerialdirigent,
Kultusministerium Rheinland-Pfalz,
Mainz.

IRELAND

D. O'Healaithe,
Department of Education,
Dublin.

JAPAN

S. Okuda,
Director of Planning and Research,
Ministry of Education,
Tokyo.

NETHERLANDS

K. Doornbos,
Director,
School Advisory Centre,
Arnhem.

C.M. Geerars,
Co-ordinating Inspector,
Ministry of Education and Sciences,
The Hague.

H.J. Jacobs,
Director.
General Pedagogical Centre,
Amsterdam,

D. Mentink,
Bureau of the Foundation for Education Research
The Hague.

H. Veldkamp,
Director,
Educational Innovation and Planning,
Ministry of Education and Sciences,
The Hague.

NORWAY

K. Eide,
Director,
Planning Department,
The Royal Ministry of Church and Education,
Oslo.

R. Solheim,
National Council for Innovation in Education,
Oslo.

PORTUGAL

J. Fraùsto da Silva,
President of the Bureau of Educational
Research and Planning,
Lisbon.

F. Teixeira de Matos,
Director-General of Basic Education,
Lisbon.

M. Tavares Emidio,
Director-General of Secondary Education,
Lisbon.

A. Amaro da Costa,
Deputy to the President of the Bureau of
Educational Research and Planning,
Lisbon.

A. de Almeida Costa,
Director of the Office for Studies in Education
of the Bureau of Educational Research and Planning,
Lisbon.

A. Castelo Branco,
First Category Technician of the Bureau of Educational
Research and Planning,
Lisbon.

B. Horta Ferreira,
First Category Technician,
Division of External Relations,
Office of the Secretary-General,
Ministry of National Education,
Lisbon.

SPAIN

K. Batato,
Autonomous University of Madrid,
Madrid.

J. Costa Ribas,
Inspector Central,
Ministry of Education,
Madrid.

R. Marin Ibanez,
General Directorate,
Ministry of Education,
Madrid.

SWEDEN

M. Bosson-Nordbö,
Head of Department of Teachers Training
and Educational Research,
National Board of Education,
Stockholm.

S.A. Johansson,
Head Secretary,
Commission on Working Conditions in Schools,
Stockholm.

S.E. Henricson,
Head of Division of Teacher in-service Training,
National Board of Education,
Stockholm.

TURKEY

I. Ozdil,
Counsellor to the Minister,
Ministry of National Education,
Ankara

UNITED KINGDOM

J.A.G. Banks,
Assistant Secretary,
Planning Unit,
Department of Education and Science,
London.

R. Bolam,
Research Associate,
University of Bristol,
Bristol.

E.H. Briault,
Education Officer,
Inner London Education Authority,
London.

H. Cunningham,
Headmaster,
Madeley Court Educational and Recreation Centre
Telford.

A.R. Gallon,
H.M. Inspector of Schools,
Scottish Education Department,
Aberdeen.

E. Hoyle,
Professor of Education
University of Bristol,
Bristol.

B. McDonald,
Senior Lecturer in Evaluation,
University of East Anglia,
Norwich.

P.H. Taylor,
Professor of Education,
University of Birmingham,
Birmingham.

UNITED STATES

D. Allen,
Dean of School of Education,
University of Massachussetts,
Amherst, Mass.

S. Kaagan,
Office of the Deputy U.S. Commissioner
for Development,
Office of Education,
Department of Health, Education and Welfare,
Washington, D.C.

M. Melnik,
Director of Clinic to Improve University
Teaching,
School of Education,
University of Massachussetts,
Amherst, Mass.

W.A. Shine,
Assistant Commissioner of Education,
State of New Jersey,
Department of Education,
Trenton, N.J.

N. Walker,
Superintendent,
Louisville,
Kentucky.

OTHER PARTICIPANTS

P. Caspar,
Président,
Quaternaire Education,
Paris, France.

M. Skilbeck,
Director of Education Centre,
The New University of Ulster,
Northern Ireland.

I. Sagara,
Directeur de la Maison du Japon,
Cité Universitaire,
Paris, France.

EXPERTS

M. Kogan,
Professor of Government and Social Administration,
Brunel University,
Uxbridge, U.K.

T. McMullen,
OECD/CERI,
Paris, France.

J. Nisbet,
Head of Department of Education,
University of Aberdeen,
Aberdeen, U.K.

R. Schmuck,
Member of the Centre for the Advanced Study
of Educational Administration,
Eugene, Oregon,
U.S.A.

R. Vandenberghe,
Senior Lecturer,
Catholic University of Louvain,
Louvain, Belgium.

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